KFH GROUP, INC.

City of Winchester
Transit Development Plan

Final Report

August, 2011

Under Subcontract to:
Cambridge Systematics

Prepared for the:

City of Winchester
and the
Virginia Department of Rail and Public Transportation

4920 Elm Street, Suite 350 ◆Bethesda, MD 20814 ◆(301) 951-8660 ◆FAX (301) 951-0026

Table of Contents

Page

Chapter 1 – Introduction and Overview 1-1

Introduction 1-1
Background 1-1
History, Governance, and Organizational Structure 1-3
Transit Services Provided and Areas Served 1-5
Fare Structure 1-15
Vehicle Fleet 1-15
Facilities 1-16
Transit Security Program 1-17
Public Outreach 1-19

Chapter 2 – Goals, Objectives, and Standards 2-1

WinTran Mission and Goals 2-1
Goals and Issues 2-2
Service Standards 2-3

Chapter 3 – Service and System Evaluation and Transit Needs Analysis 3-1

Service and System Evaluation 3-1
Transit Needs Analysis 3-34
Review of Recent Plans 3-34

Chapter 4 – Service and Organizational Alternatives 4-1

Introduction 4-1
Service Alternatives 4-1
Organizational Alternatives 4-26
Summary 4-32

Table of Contents (continued)

Page

Chapter 5 – Operations Plan 5-1

- Introduction 5-1
- Recommendations Focused on Improving the Efficiency and Effectiveness of the Current Route Network 5-2
- Geographic Changes to the Current Route Network Primarily within the City of Winchester 5-7
- Potential Geographic Expansions of the Current Route Network into Surrounding Frederick County 5-11
- Additional Days, Hours, and Frequency of Service 5-20
- Improved Passenger Amenities and Infrastructure 5-21
- Organizational Recommendations 5-22

Chapter 6 – Capital Improvement Plan 6-1

- Introduction 6-1
- Vehicle Replacement and Expansion Program 6-1
- Facilities 6-4
- Technology 6-4

Chapter 7 – Financial Plan 7-1

- Introduction 7-1
- Operating Expenses and Funding Sources 7-1
- Vehicle Purchase Expenses and Funding Sources 7-4
- Facility Improvement Expenses and Funding Sources 7-4

Chapter 8 – TDP Monitoring and Evaluation 8-1

- Introduction 8-1
- Coordination with Other Plans and Programs 8-2
- Service Performance Monitoring 8-2
- Annual TDP Monitoring 8-2

Appendix A: On-Board Rider Survey
Appendix B: FTA Triennial Review Report
Appendix C: Trip Generator Tables
Appendix D: Bicycle & Pedestrian Mobility Plan (Executive Summary)

Chapter 1

Introduction and Overview

INTRODUCTION

A Transit Development Plan (TDP) is a planning tool used to analyze the need for transit in a defined area, evaluate the services that are provided, and develop strategies to match the service to the identified transit needs. The planning horizon for a TDP is short-range, in this case, six years.

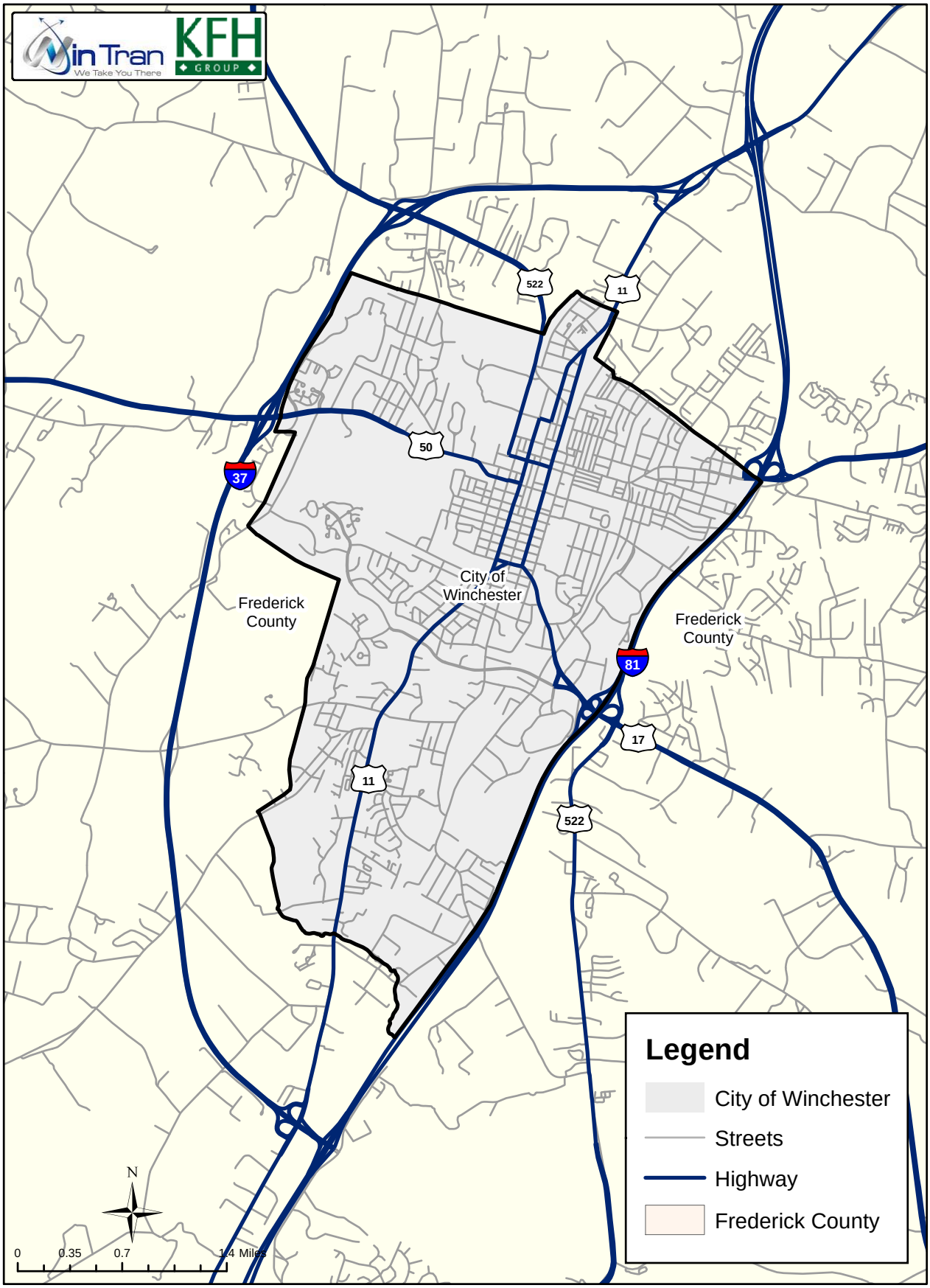
The Virginia Department of Rail and Public Transportation (DRPT) has an emphasis on investing in transit systems that are meeting the existing demand for public transportation, and a desire to meet the growing demand for improved public transportation services through careful coordination of transit and land use planning. As such, DRPT requires that public transit operators receiving state funding prepare, adopt, and submit a TDP at least every six years. DRPT provides consultant assistance to local operators to develop the plans.

KFH Group, a subcontractor to Cambridge Systematics (currently under contract to DRPT), assisted the City of Winchester in the preparation of the *2011 City of Winchester Transit Development Plan.*

BACKGROUND

The City of Winchester, an independent jurisdiction surrounded by Frederick County, is located in the Northern Shenandoah Valley between the Appalachian and Blue Ridge Mountains. The City is part of the Winchester-Frederick County Urbanized Area, which is comprised of the City of Winchester, Stephens City, and parts of Frederick County. Several transportation routes serve the City, making it a convenient location for business and industry. These routes include I-81, US11, US50, US522, VA7, and the CSX Railroad. Figure 1-1 provides a map of the City and its surroundings.

Figure 1-1: Map of Winchester and the Surrounding Area



Known as the "apple capital," the Winchester area is one of the largest apple export regions in the country. Founded in 1732, Winchester is home to a number of historic sites, particularly those associated with the Revolutionary War and the Civil War. The City is also home to Shenandoah University, which is a relatively small private university (about 3,500 students). Winchester serves as the regional center of business, industry, and commerce for the Northern Shenandoah Valley.

The population of the City (2005-2009 American Community Survey estimate) is 25,977, up 10% from the Census 2000 population of 23,585. The City is comprised of 9.35 square miles. The population of the urbanized area (2005-2009 American Community Survey estimate) is 65,570, which is 41% higher than the Census 2000 population of 53,559. Growth within the urbanized area that is not in the City has added pressure for the transit program to expand beyond the borders of the City, though it currently only does so minimally.

Public transportation in the City is primarily provided by Winchester Transit (WinTran), which is operated by the City of Winchester. WinTran offers six fixed routes, a trolley route, and Americans with Disabilities Act (ADA) complementary paratransit.

The Shenandoah Area Agency on Aging operates a van service (WellTran) that serves seniors and people with disabilities, providing non-emergency transportation for a variety of trip purposes. Medicaid transportation is provided through Logisticare using local private operators.

Commuter bus and van service was previously operated by the Valley Connector, but was discontinued in early 2011.

The closest intercity bus stop to Winchester is in Hagerstown, Maryland, and the closest Amtrak station to Winchester is in Martinsburg, West Virginia.

HISTORY, GOVERNANCE, AND ORGANIZATIONAL STRUCTURE

The City of Winchester established a City department to operate public transportation in 1950, purchasing the service from a private operator. WinTran is operated as a City Division under the Public Services Department. The Transit Division Manager reports to the Public Services Director who in turn reports to the City Manager, who reports to the City Council. Figure 1-2 provides the Organizational Chart for WinTran and the City.

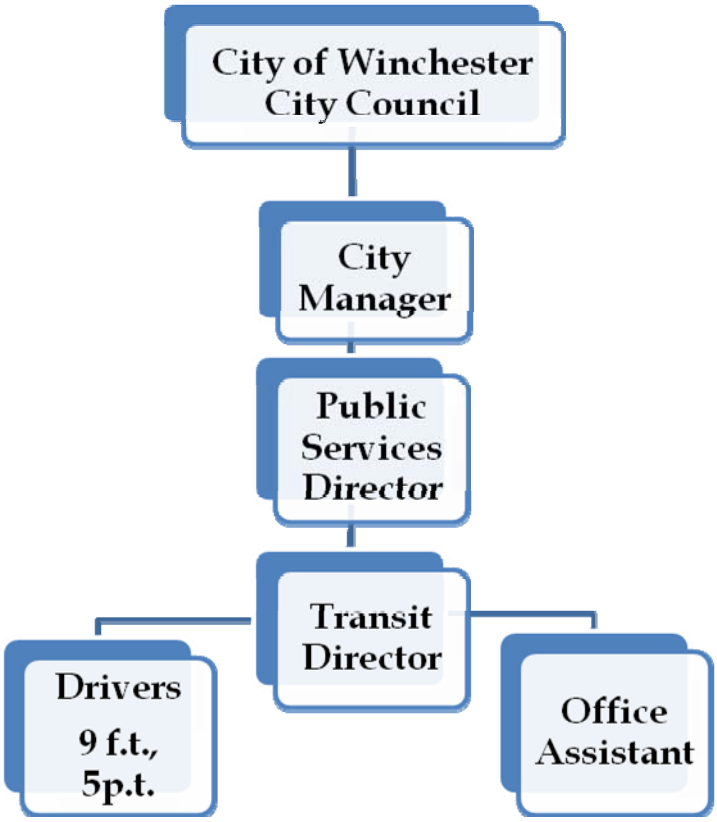


Figure 1-2: Organizational Chart for Winchester Transit

TRANSIT SERVICES PROVIDED AND AREAS SERVED

The City of Winchester directly operates WinTran's six fixed routes, Trolley route, and complementary ADA paratransit services. Three vehicles are used to operate the six fixed routes, which are operated on a timed hub transfer system, whereby the routes meet downtown on Boscawen Street, near the intersection with Cameron Street. Figure 1-3 shows WinTran's fixed-route network.

Fixed-Route Service Details

WinTran's fixed routes operate Monday-Friday from 6:00 a.m. to 8:00 p.m. and on Saturdays from 9:00 a.m. to 5:00 p.m. The trolley route operates Monday/Wednesday/Friday from 8:00 a.m. to 6:00 p.m. and on Saturdays from 9:00 a.m. to 5:00 p.m. Each of the routes is described below, while Chapter 3 of this TDP provides a more in-depth service and system evaluation for each route.

Amherst

The Amherst route provides east-west service from downtown Winchester to the Winchester Medical Center via Amherst Street. Major attractions along the route include James Wood Middle School, several medical offices, and the Sacred Heart Academy. The route takes approximately 25 minutes to accomplish and is paired with the South Loudoun route to provide hourly headways. The Amherst route is 5.4 miles in length. Figure 1-4 provides a map of the route.

South Loudoun

WinTran's South Loudoun route provides service from downtown Winchester to the southeast portion of the City via S. Loudoun Street, Papermill Road, and Shawnee Drive, with two short side loops. Several major employers on the southeast portion of the City are served, along with multi-family housing locations. Paired with the Amherst route, the South Loudoun route also takes 25 minutes to accomplish and offers hourly headways. At 9.2 miles, the route is long for a 25-minute cycle. Figure 1-5 provides a map of the route.

Berryville Avenue

The Berryville Avenue route provides a loop service from downtown north toward housing areas in the downtown and then heads east along Berryville Avenue to the Eastgate Shopping Center, returning to downtown via a second residential loop south of Berryville Avenue. At 5.2 miles, the Berryville Avenue route is the shortest of

Figure 1-3: Winchester Transit's Fixed Route Network

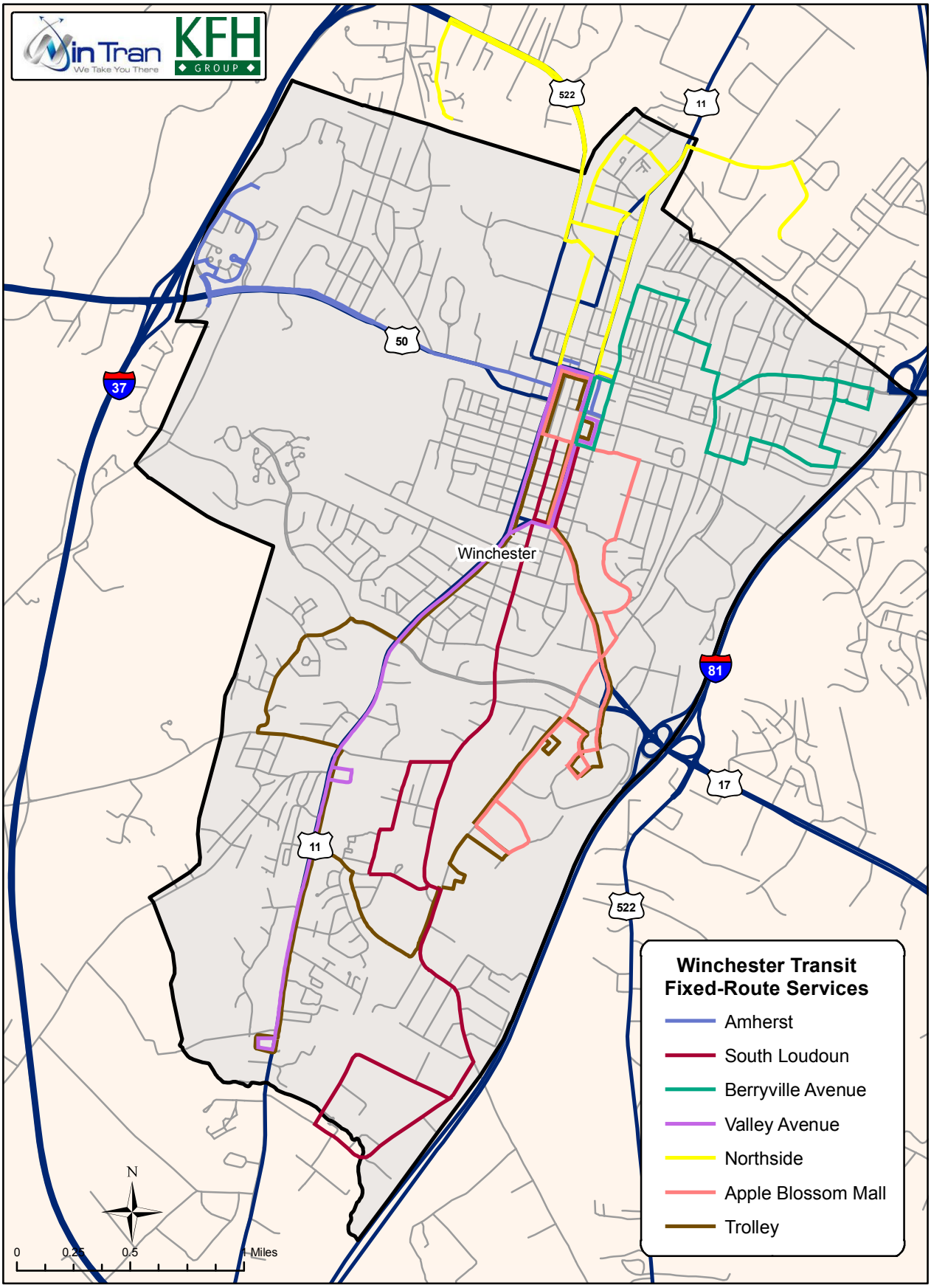


Figure 1-4: Amherst Route Map

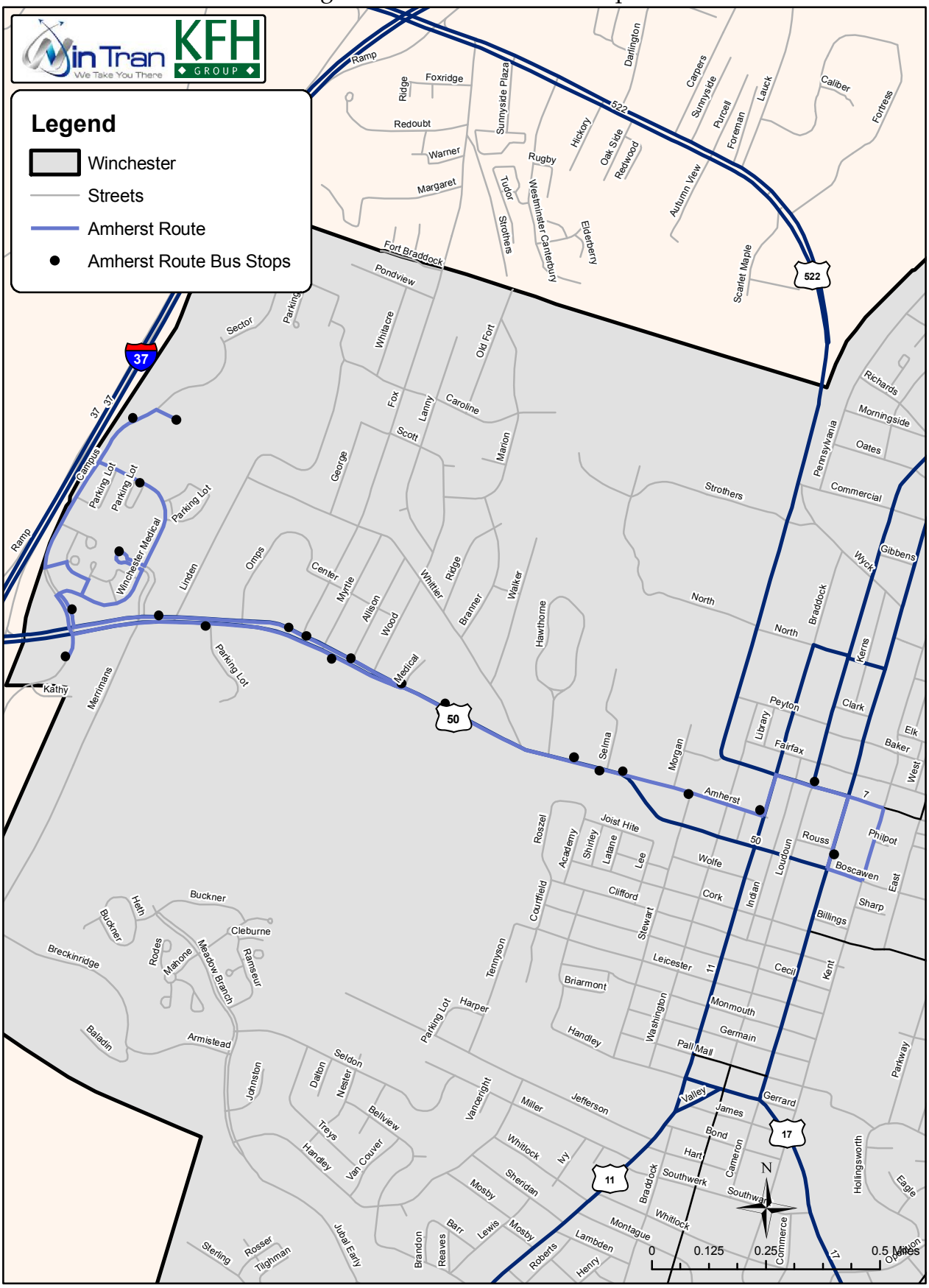
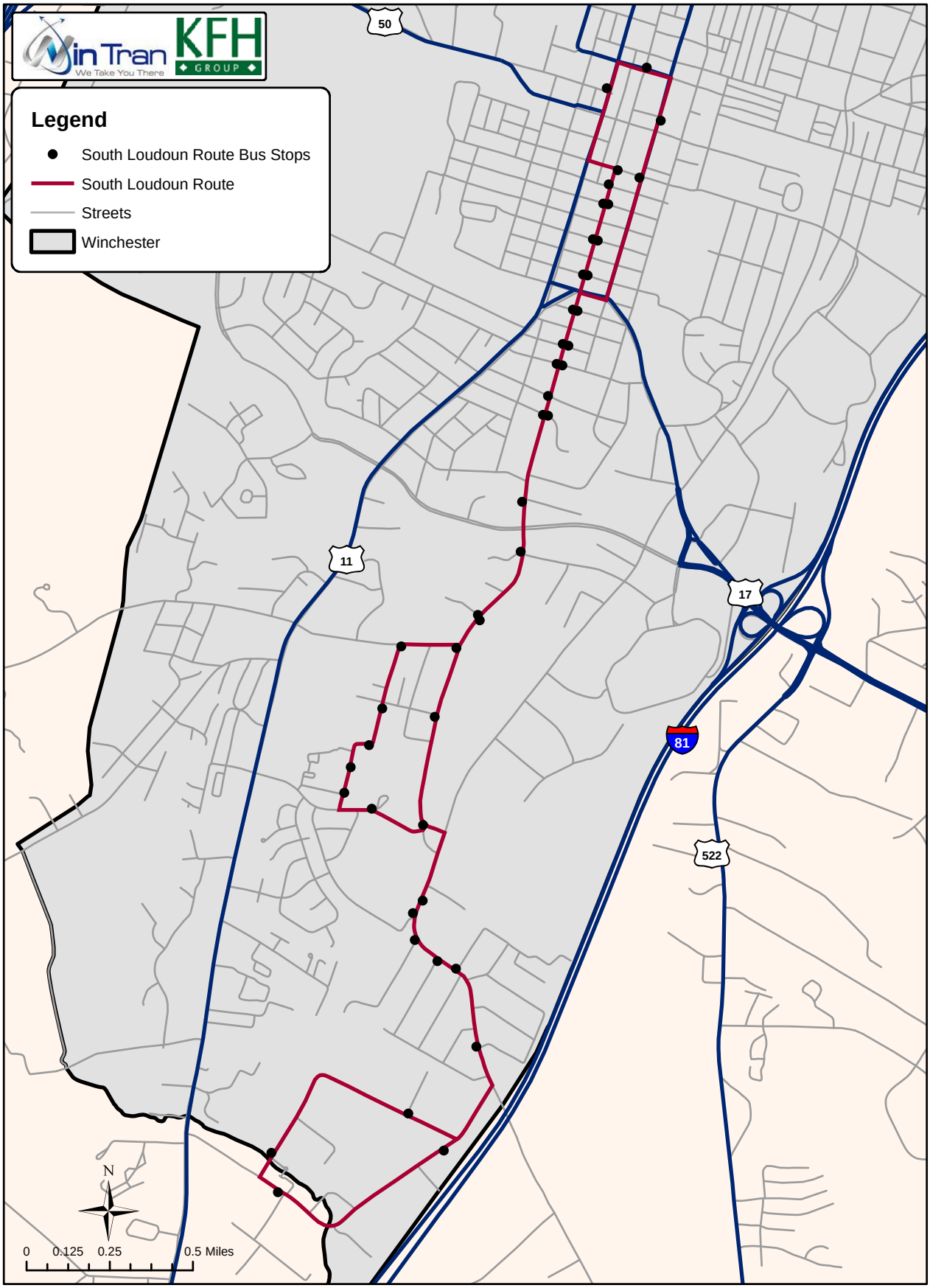


Figure 1-5: South Loudoun Route Map



the fixed routes and is paired with the Valley Avenue route to offer hourly headways. Figure 1-6 provides a map of the route.

Valley Avenue

WinTran's Valley Avenue route provides north-south service along the Valley Avenue corridor to Creekside. Several commercial and employment destinations are located along the corridor, including the Rubbermaid plant, the Creekside Shopping Center, and Ward's Plaza. The 25-minute route is 7.1 miles in length and is paired with the Berryville Avenue route to offer hourly headways. Figure 1-7 provides a map of the Valley Avenue route.

Northside

The Northside route provides service to the northern areas of Winchester, both east and west, terminating outside the City limits at the Westminster Canterbury Retirement Community. Paired with the Apple Blossom Mall route, the route length is 8.9 miles and service is provided on an hourly basis. Figure 1-8 provides a map of the Northside route.

Apple Blossom Mall

The Apple Blossom Mall route provides service from downtown to major commercial shopping areas and Shenandoah University, located off of Pleasant Valley Road. Paired with the Northside route, this 6.4 mile route offers hourly headways. Figure 1-9 provides a map of the Apple Blossom Mall route.

Trolley

The Trolley route is not paired with any of the other fixed routes and operates on an hourly schedule (M,W,F,Sa). This 9.3 mile circulator route provides service from downtown to Handley Library, the Willows community, CVS Pharmacy, Winchester Station, Wal-Mart, Target, Apple Blossom Corners, Food Lion, and Apple Blossom Mall. The Trolley route map is shown in Figure 1-10.

Paratransit Service

WinTran's ADA complementary paratransit service provides curb-to-curb service to meet the needs of people who are unable to use the fixed routes due to temporary or permanent disabilities. Service is provided to eligible customers within the city and to those destinations that are within ¾ mile of any city fixed-route. WinTran requires that potential ADA riders complete an application to verify that they are unable to use the fixed route service and the application must be signed by a

Figure 1-6: Berryville Avenue Route Map

Figure 1-7: Valley Avenue Route Map

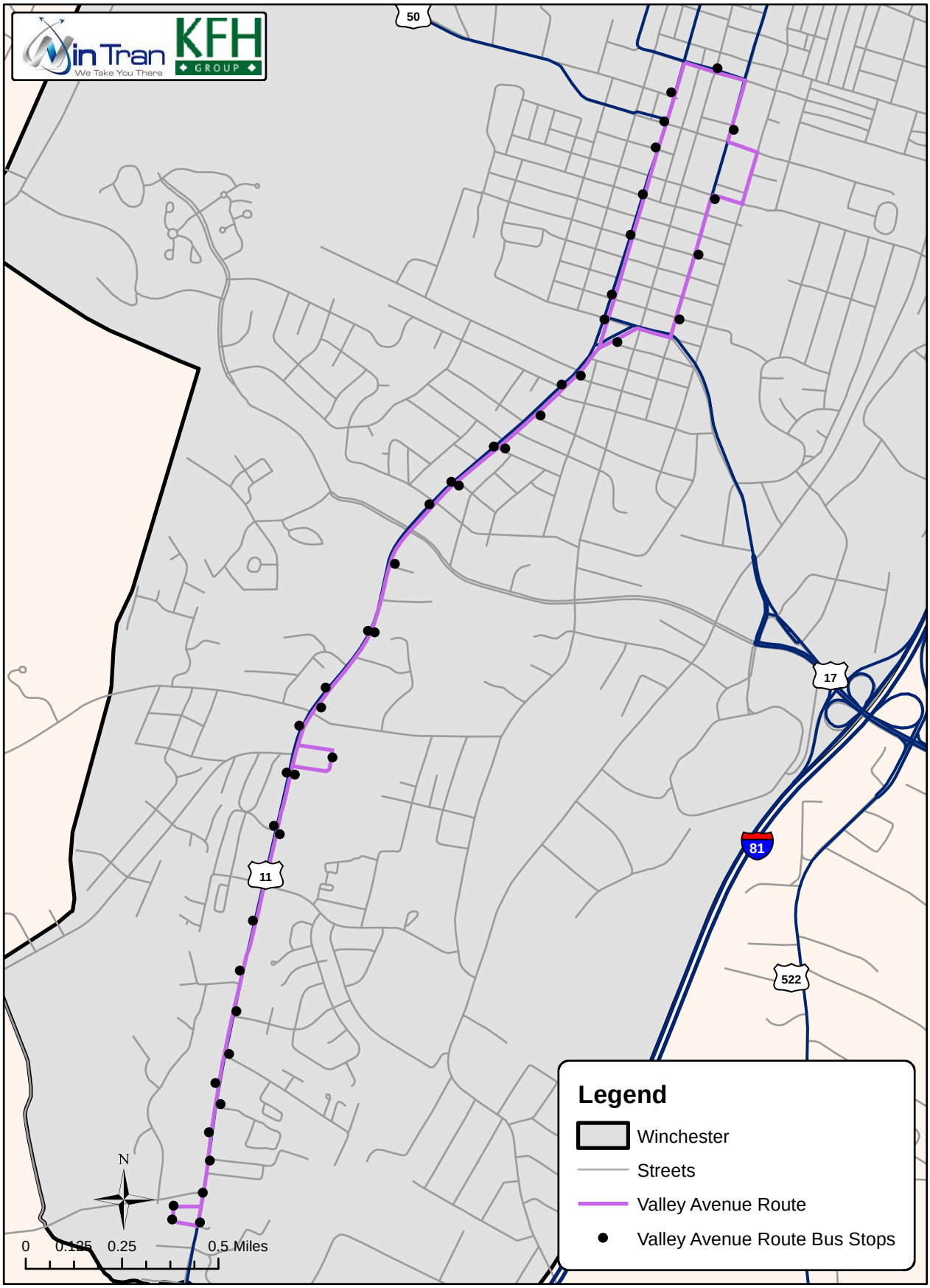


Figure 1-8: Northside Route Map

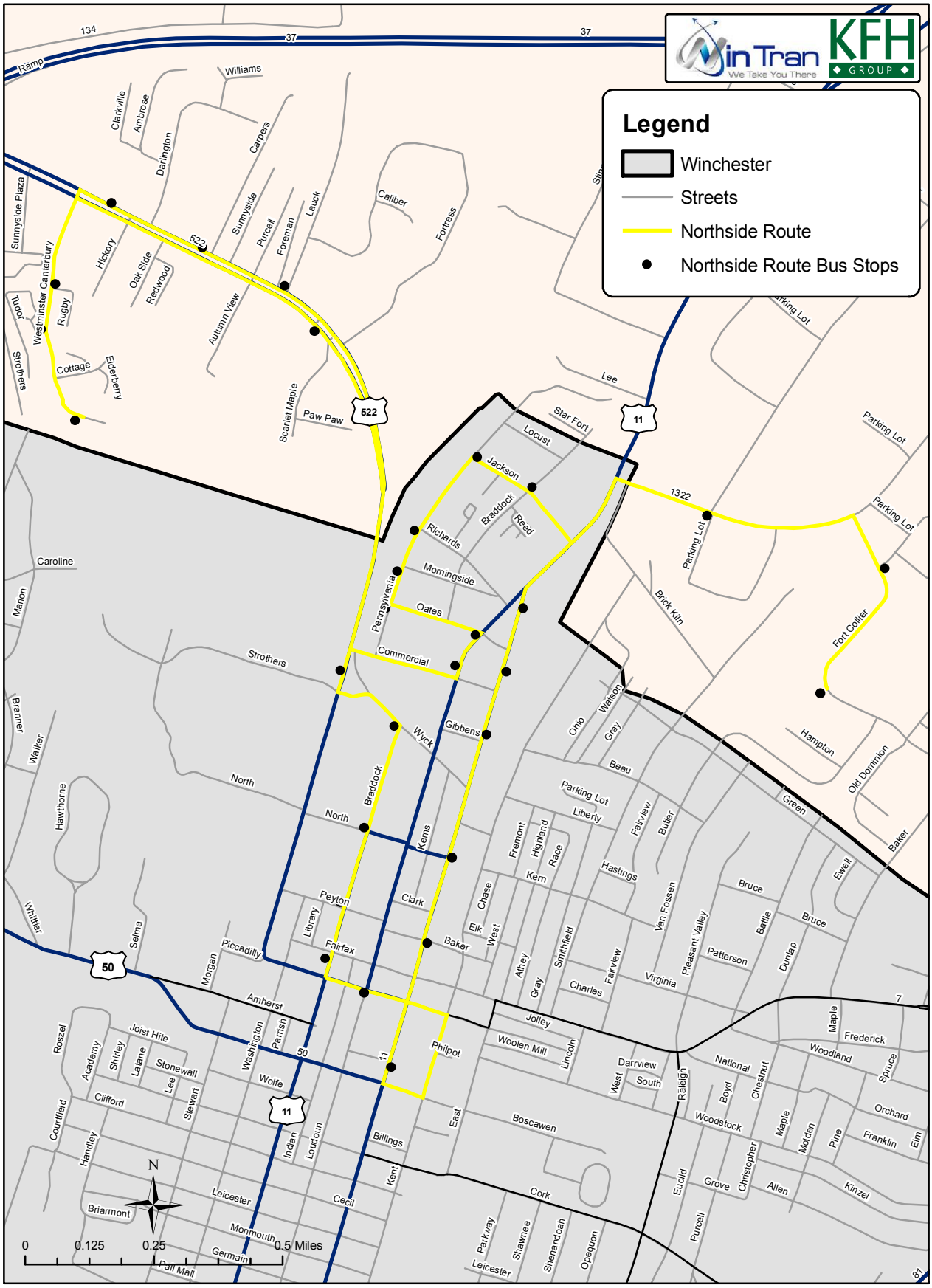


Figure 1-9: Apple Blossom Mall Route Map

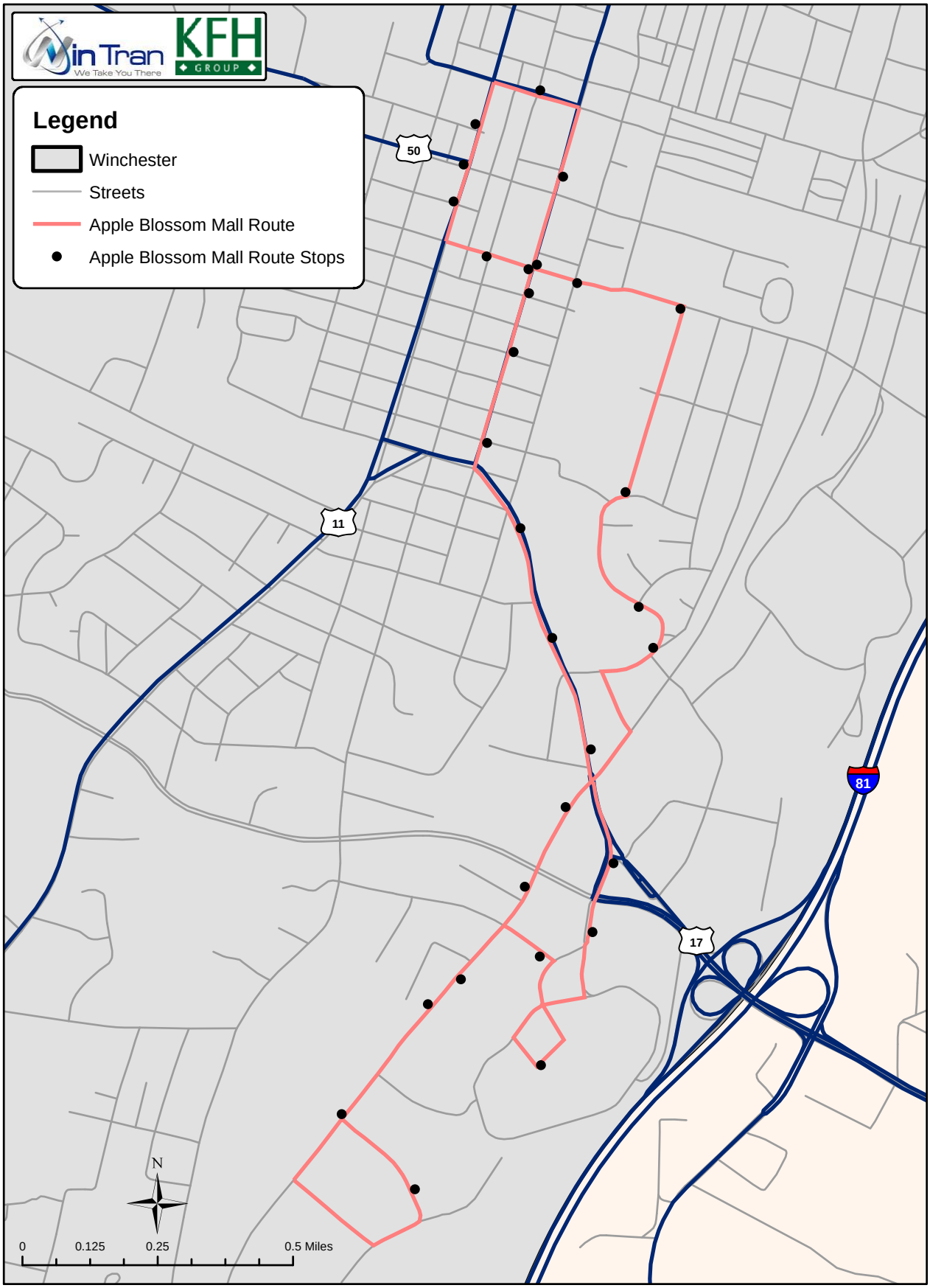
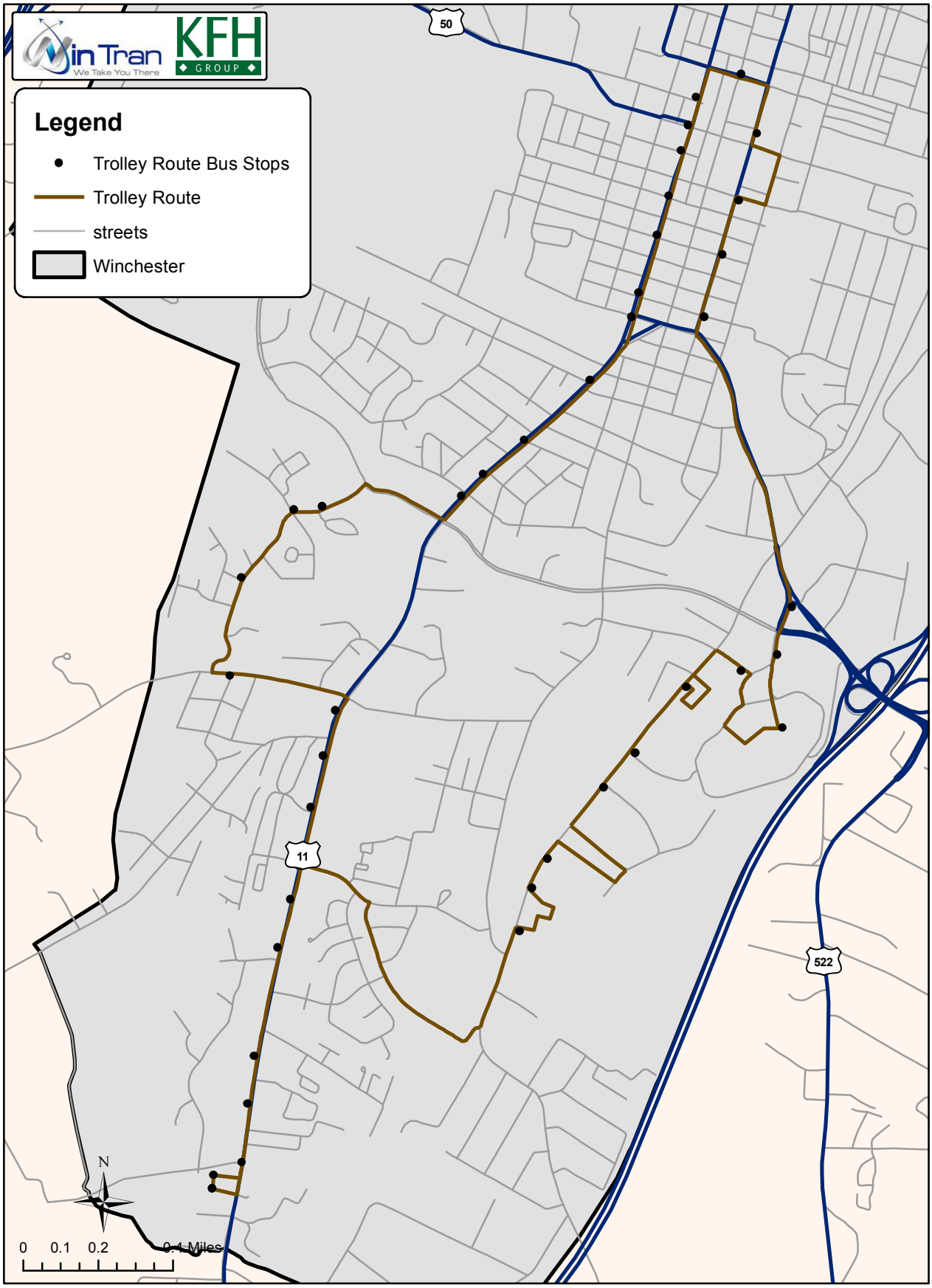


Figure 1-10: Trolley Route Map



licensed health-care provider. While the application process can take up to 21 days, WinTran does allow people to use the service while their applications are pending.

Riders are asked to call 24 hours in advance to schedule their trips. The scheduling is handled by an administrative support person, supplemented by the afternoon drivers who make last minute adjustments for calls received after 5:00 p.m. Scheduling is done manually in 15-minute blocks. Two lift-equipped vehicles are used for the service.

FARE STRUCTURE

The one-way base fare for WinTran is $1.00 per trip. Students, senior citizens, people with disabilities, and Medicare card holders pay a fare of $0.50 per trip. A discount ticket book of 20 tickets is $17.00 There is not a charge to transfer from one route to another during the same trip. The fare structure is highlighted in Table 1-1.

Table 1-1: WinTran Fare Structure

Regular Base Fare (Ages 18 and older)	$1.00
Students/Senior Citizens/Persons with Disabilities/Medicare	.50¢
Discount Book of 20 Tickets	$17.00
Children Under 2	Free

VEHICLE FLEET

WinTran owns 12 vehicles, including seven body-on-chassis vehicles, two trolleys, two vans, and a staff car. Six of the revenue service vehicles are designated for the fixed routes (three on the road and three spares) and three are designated for the paratransit program (two on the road and one spare). The spare ratio for the fixed-route vehicles is high at 100%; however the three spare vehicles are all nearing the end of their useful life. All of the revenue service vehicles are ADA accessible. Table 1-2 provides the WinTran vehicle inventory as of January, 2011.

Table 1-2 : WinTran Vehicle Inventory

Local Fleet Number	Model Year	Manufacturer	Model and Type	Seating Capacity	Wheel-chair Stations	Use	Condition	Mileage January 2011
321	2008	Chevrolet	Supreme Bus	14		Paratransit	Excellent	7,013
318	2008	Chevrolet	Supreme Bus C5500	24	2	Fixed-Route	Good	74,560
319	2008	Chevrolet	Supreme Bus C5500	24	2	Fixed-Route	Good	69,997
320	2008	Chevrolet	Supreme Bus C5500	24	2	Fixed-Route	Good	66,948
300	2003	Chevrolet	Malibu Sedan	5	0	Admin.	Good	31,234
325	2005	Freightliner	Classic Am. Trolley	30	2	FR Trolley	Good	43,320
326	2005	Freightliner	Classic Am. Trolley	30	2	FR Trolley	Good	53,923
323	2004	Chevrolet	Supreme Bus C5500	24	2	FR Spare	Fair	171,273
324	2004	Chevrolet	Supreme Bus C5500	24	2	FR Spare	Fair	173,328
322	2004	Chevrolet	Supreme Bus C5500	24	2	FR Spare	Fair	169,545
301	2006	Ford	Econoline Van	9	2	Paratransit	Good	68,737
302	2006	Ford	Econoline Van	9	2	Paratransit	Good	53,678

FACILITIES

WinTran operates out of the City Yards complex, located at 301 East Cork Street. The Transit Director and the Office Assistant have small offices located adjacent to the City's maintenance bays. The administrative area is very small and cramped at this location, though the Transit Division can access other City buildings when needed for meetings. The City is planning to construct a new administrative building for WinTran that will better accommodate the needs of the staff. The building will also be located at the City Yard complex and is currently in the design phase. Construction is planned for FY 2013 if funding is available.

The City recently constructed a 7,400 square foot storage facility on the west side of the main building at City Yards. The new storage facility allows each transit vehicle to have its own bay.

Passenger Shelters

There are currently eight passenger waiting shelters positioned throughout the community at the following locations:

2 – Boscawen Street transfer station
1 – Northside Route (corner of Cameron/Baker)
1 – Amherst Route (corner of Westside Station/Amherst)
1 – Berryville Route (Elm Street)

1 – Apple Blossom Mall Route – (Pleasant Valley Rd. @ entrance to Kmart)
1 – Valley Avenue Route (Valley Avenue @ Foodlion)
1 – South Loudoun Route (S. Loudoun @ Ricketts Drive)

WinTran recently received four additional shelters and will be placing and installing them this year. The boarding /alighting data collected for this TDP (Chapter 3) may provide some guidance as to where they should be placed based on stop activity level.

Stimulus Projects

WinTran was approved for the following capital items through the American Recovery and Reinvestment Act:

- Surveillance cameras
- New computers and a new server
- New bus stop signs (with the new WinTran logo)
- Paratransit software
- Public address system for the vehicles

TRANSIT SECURITY PROGRAM

WinTran has a "Safety and Security Plan," dated November 2006 and updated regularly. The stated purpose of the Plan is "to provide procedures for maintaining a safe and secure Maintenance facility for operations and service, employees and the public served by Winchester Transit."

The Plan includes a chart of prevention activities that are conducted by WinTran to prevent security incidents. This chart is provided as Exhibit 1-1.

Another feature of WinTran's transit security program includes the use of video/audio cameras on the vehicles. These cameras provide recordings of incidents on the vehicles and these recordings can be reviewed to determine the facts associated with altercations that may arise on board.

The February 2009 Winchester Transit Performance Review conducted for VDRPT by VHB and RLS noted that WinTran did not have a formal emergency preparedness plan in place, though the Director does attend City-wide training for disaster and emergency preparedness.

Exhibit 1-1

	Frequency	Responsibility	Action
1.	Daily	Drivers	Drivers must complete a vehicle checklist before beginning their routes and at the end of each shift; the list specifically includes security-related items.
2.	Daily	Mechanics	After maintenance or repair work has been performed on vehicles, mechanics must complete a checklist before signing out any vehicle; the list certifies that a security check has been performed.
3.	Daily	All employees	Employees must display their badges prominently at all times while on duty.
4.	Daily	All employees	All employees must secure vehicle keys at the end of the shift, in accordance with agency policy (e.g., in the night drop box, changer to be locked in locker and building secured).
5.	Daily	All employees	All employees must safeguard facility keys at all times. Further, all employees must follow policies for checking out (logging) keys.
6.	Daily	Drivers	When leaving their vehicles unattended during shifts or break times, drivers must secure their vehicles.
7.	Daily	Drivers	Vehicles must be secured at the end of the shift.
8.	Daily	Drivers	Facilities must be secured at the end of the shift.
9.	Daily	Drivers	Drivers must enforce policies prohibiting certain dangerous (list is on bus) items on board vehicles.
10.	Daily	Administrative staff	The shipping and receiving function is to be conducted in a secure manner that will both prevent theft and safely detect and process security anomalies (such as suspicious packages).
11.	Daily	All employees	Cash collected each day is to be turned in before leaving the premises and it must be sufficiently controlled to prevent theft.
12.	As required/ appropriate	Management staff	Management has implemented fare evasion policies to prevent theft-of-service crimes.
13.	As required/ appropriate	Administrative staff	New employees are thoroughly screened. The agency checks references, and the employee application includes questions regarding the applicant's criminal background. All potential employees are subjected to a criminal background check.
14.	As required/ appropriate	Administrative staff	Workplace conflicts are to be resolved using prompt human resource action, particularly in the case of employee conflicts.
15.	As required/ appropriate	Administrative staff	Instances of workplace bullying, which sometimes contain the potential to escalate, are to be resolved using prompt human resource action.

	Frequency	Responsibility	Action
16.	As required/ appropriate	All employees	All employees are to report substantive hazards to management staff.
17.	Quarterly	Administrative staff	Administrative staff are to communicate regularly with passengers, educating them regarding security tips and proper behavior.
18.	Quarterly	Management staff	Security systems—including locks, fences, badges, alarms, radios, and other equipment—are reviewed and upgraded at least quarterly.
19.	Annually	Management staff	The office manager will reassess bus stop locations from time to time to ensure stops are located in the most secure areas possible.
20.	Annually	Management staff	Management staff is responsible for changes in system policies, procedures, and training materials.

Fare Collection

The drivers are responsible for collecting fares, tickets, selling ticket books, and counting passengers. All fares, tickets collected, passenger counts, and books sold are recorded on meter cards by the drivers. The meter cards are placed in the drivers' money bags and placed in the "night deposit" drop box in the Office Assistant's wall.

The Office Assistant counts and reconciles the farebox revenues and then enters the information into an Excel spreadsheet. This sheet is the basis for capturing ridership and revenue for the system. After counting, reconciling, and recording, the Office Assistant prepares the bank deposit. At the end of the day, the Office Assistant takes the deposit to the bank and takes the City's copy of the deposit slip to the City finance office for posting. The 2009 Performance Review recommended that the Transit Director conduct a daily independent review of the meter sheets and revenue records so that one person is not solely responsible for the revenue tabulation and deposit process.

PUBLIC OUTREACH

As a City Department, the primary means of public outreach is conducted through the City Council's public meeting process. Service and policy changes are discussed at regularly scheduled, open, City Council meetings. Public comment is afforded at these meetings that are generally held twice a month. Public notices are also posted on the City's website.

Chapter 2

Goals, Objectives, and Standards

This chapter presents Winchester Transit's mission, presents a set of goals for the system, articulates the issues that were considered during the development of the Plan, and presents a set of performance standards for the system.

WINTRAN MISSION AND GOALS

The mission of WinTran is to provide safe, dependable, and economical transportation services to its transit system passengers.[1] WinTran has had various goals over the years, but does not have an adopted set of goals for the program. It is important that WinTran have specific goals, objectives, and service standards to help guide the system and objectively measure if the system is accomplishing its mission.

Goals

Goals are broad and general, providing policy guidance as to how WinTran's mission should be accomplished. The following goals were drafted for WinTran and were discussed with City staff.

1. Offer convenient access to medical facilities, employment areas, shopping centers, schools, and community agencies.

2. Provide access to employment opportunities for City residents.

3. Provide adequate mobility options to enable City residents to "age in place."

[1] Winchester Transit Employee Handbook.

4. Promote mobility options that enable City residents to maintain personal independence and be engaged in civic and social life.

5. Help improve the environment by offering transportation alternatives beyond the automobile.

6. Strengthen coordination and explore partnerships between the City of Winchester and Frederick County, major employers, educational facilities, and other private entities to ensure effective service delivery in the community.

7. Manage, maintain, and enhance the existing public transportation system.

GOALS AND ISSUES

At the initial meeting for the project between City staff and KFH Group staff, the following goals and issues were considered for the Plan:

- The City of Winchester has had a staff re-organization and has a new City Manager. The transit program now reports to the Public Services Director, rather than to the City Manager.

- The City has built a new transit garage and is in the design phase of building an administrative building next to it, with construction scheduled for FY 2012.

- The City has changed its street pattern from paired one-way streets in the downtown to two-way streets. ***Opportunity to change WinTran's downtown routing patterns were examined as part of this TDP.***

- Ridership and fare revenue were down in FY 2010 for a number of reasons, including:
  - Major construction downtown that disrupted traffic flow and access to bus stops
  - A fare increase
  - The general economic downturn

  A goal for the TDP will be to develop service adjustments that will increase ridership.

- WinTran had been working on a new initiative with the Old Town Development Board to implement a trolley service that will link tourist destinations in Winchester. This initiative is currently on the back burner due to financial constraints.

- WinTran has extended its Valley Avenue route to the Creekside Center, which was one of the recommendations of the Winchester-Frederick County Transit Services Plan.

- WinTran has not trimmed back its routes to limit itself exclusively to the City and there are no imminent plans to do so. *Expansions into Frederick County are included in this plan and the City and County will need to work collaboratively to implement these expansions.*

- There are some timing issues with the current routes and these needs were looked at during the TDP.

Additional goals for the TDP include:

- Examine ways to modify the routes to cover more areas of the City, particularly those areas that are undergoing development or re-development.

- Examine ways to provide better transportation options for the Shenandoah University community.

- Compile and analyze reference information that can provide objective data for making route changes.

These issues and goals were considered throughout the development of the TDP.

SERVICE STANDARDS

Service standards are benchmarks by which service performance is evaluated. Service standards are typically developed in several categories of service, such as service coverage, passenger convenience, fiscal condition, and passenger comfort. The most effective service standards are straightforward and relatively easy to calculate and understand.

WinTran does not currently have defined service standards. The 2009 Performance Review recommended the development of service standards and this recommendation is still valid. There are several basic service standards that WinTran

could use to help evaluate service on a regular basis to ensure that WinTran is carrying out its mission in the most effective manner possible.

Table 2-1 presents service standards suggested for WinTran. Some of the standards are policy-oriented and were further discussed among stakeholders. Other measures are data-driven and were calculated as part of the detailed analyses of routes and services.

Table 2-1: Service Standards

Category	Standard
Availability *Service availability is a direct reflection of the level of financial resources available for the transit program. Service coverage, frequency, and span of service are considered under the category of "availability."*	***Service Coverage:*** • Residential areas: o Areas with population densities of 2,000 people + • Major activity centers: o Employers or employment concentrations of 200+ o Health centers o Middle and high schools o Colleges/ universities o Shopping centers of over 25 stores or 100,000 sf o Social service/government centers
Frequency is currently hourly on the fixed routes.	***Frequency:*** o 60 min. on weekdays o 60 min. on Saturdays
The current span of service is 6:00 am to 8:00 pm, M-F, and 9:00 am to 5:00 pm on Saturdays.	***Span:*** 6:00 a.m. to 8:00 p.m. on weekdays 9:00 a.m. to 5:00 p.m. on Saturdays ***Patron Convenience***
Loading	25% standees for short periods acceptable
Bus Stop Spacing	5 to 7 stops per mile in core Fringe: 4 to 5 per mile, as needed based on land uses
Dependability	No missed trips -- 95% on-time service (0 to 5 minutes late)-- No trips leaving early

Category	Standard
	Fiscal Condition
Farebox Recovery	Review and modify, if possible, services that exhibit less than 60% of average Review and modify, if warranted, services between 60% and 80% of average Average is currently 13%
Productivity (Pass./rev. hour)	Review and modify, if possible, services that exhibit less than 60% of average Review and modify, if warranted, routes between 60% and 80% of average Fixed-route average is currently 7.8 trips per revenue hour. ADA paratransit is currently 2.35 trips per revenue hour
Cost Effectiveness (Cost per trip)	Review and modify, if possible, services that exhibit less than 60% of average Review and modify, if warranted, routes between 60% and 80% of average Fixed-route average is currently $5.65 per trip ADA paratransit is currently $9.91 per trip
	Passenger Comfort
Waiting Shelters	20 or more boardings per day
Bus Stop Signs	Should have the system name, contact information, and route
Public Information	Timetable, maps, and website current and accurate
Revenue Equipment	Clean and good condition

Chapter 3

Service and System Evaluation and Transit Needs Analysis

SERVICE AND SYSTEM EVALUATION

Overall System Data

The operating statistics and performance measures for WinTran were collected from the City and these data are shown in Table 3-1. As these data show, ridership declined on the fixed routes in the three year period by about 14%. This decline was attributed to a combination of the economic downturn, and a major downtown road construction project that disrupted WinTran routes. Ridership on the ADA paratransit service was also down, though not as significantly (7%). Data collected for the first half of FY 2011 would suggest that ridership has begun to rebound, with 57,962 passenger trips recorded on the fixed routes, a projected 9% increase over FY 2010 fixed-route ridership.

Revenue hours and revenue miles increased over the period, as WinTran extended service into the early evenings, from a combined total of 17,422 annual revenue service hours and 196,312 revenue miles to 19,566 revenue hours (a 12.3% increase) and 218,037 revenue miles (an 11% increase). Fare revenue also increased, particularly for the fixed routes, reflecting a fare increase that was implemented in 2009.

These factors combined (lower ridership and more hours and miles of service) to lower productivity during the period from 10.4 passenger trips per hour fixed-route and 2.8 passenger trips per hour demand-response to 7.8 passenger trips per hour fixed-route and 2.35 trips per hour demand-response.

Peer Review

While it is most relevant for a transit agency to examine its own performance over time, it is valuable to know the operating statistics for transit programs that could

Table 3-1: WinTran- Operating Statistics and Performance Measures
FY 2008- FY 2010

	Passenger Trips		Revenue Hours		Revenue Miles		Trips/Rev.Hour		Trips/Rev.Mile		Miles Per Hour	
Year	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response
2008	124,594	15,078	12,005	5,417	164,099	32,213	10.38	2.78	0.76	0.47	13.67	5.95
2009	116,875	13,619	13,030	5,761	161,118	34,632	8.97	2.36	0.73	0.39	12.37	6.01
2010	106,643	14,013	13,614	5,952	182,929	35,108	7.83	2.35	0.58	0.40	13.44	5.90

	Operating Expenses		Fare Revenue		Cost Per Trip		Cost Per Hour		Cost Per Mile		Farebox Recovery	
Year	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response	Fixed-Route	Demand-Response
2008	$ 587,065	$ 149,537	$ 48,787	$ 7,203	$ 4.71	$ 9.92	$ 48.90	$ 27.61	$ 3.58	$ 4.64	8%	5%
2009	$ 610,789	$ 164,760	$ 64,115	$ 13,744	$ 5.23	$ 12.10	$ 46.88	$ 28.60	$ 3.79	$ 4.76	10%	8%
2010	$ 602,314	$ 138,840	$ 76,833	$ 8,048	$ 5.65	$ 9.91	$ 44.24	$ 23.33	$ 3.29	$ 3.95	13%	6%

Source: Winchester Transit.

be considered "peers," either by virtue of location, service area characteristics, or size. Therefore, FY 2008 operating statistics were obtained from the *Virginia Transit Performance Report* from the following five transit systems throughout Virginia for comparison to the Winchester Transit:

- Bristol Transit System
- Danville Transit System
- Farmville Area Bus
- Virginia Regional Transit - City of Staunton
- Virginia Regional Transit - Town of Culpeper

The results of this peer review are presented in Table 3-2. While none of the five systems' operating characteristics are exactly the same as Winchester Transit, as indicated in the table, the mean for all systems is very similar to Winchester Transit with regard to active vehicles, service area population, vehicle revenue hours, vehicle revenue miles, passenger miles, passenger trips, and farebox recovery percentage. Therefore, these systems provide appropriate peers for comparison to the Winchester Transit system.

A further review of the peer data, particularly in regard to productivity, indicates:

- Winchester Transit's trips per hour are lower than the mean. While a number of factors can impact this data, it demonstrates that the TDP process must fully examine reasons why this performance indicator is lower than the mean and present possible alternatives to improve the number of trips per hour.

- For trips per mile, Winchester Transit exceeds many of the other systems. Only Virginia Regional Transit's services in the City of Staunton provide more trips per mile. This data may be an indicator of the compactness of the Winchester Transit system, though it demonstrates that the system is productive in relation to this performance measure.

- Winchester Transit has the lowest cost per hour for any of the six systems. This data may be reflective of the small administrative staff of Winchester Transit.

- Winchester transit's cost per mile is higher than the mean, again a likely reflection of the compact service area.

Table 3-2: FY08 Peer Data for Small City Transit Programs in Virginia

Transit Program	Active Vehicle Fleet	Service Area Population	Vehicle Revenue Hours	Vehicle Revenue Miles	Passenger Miles	Passenger Trips	Operating Expenses	Fare Revenue	Farebox Recovery
Winchester Transit	11	26,000	17,422	196,312	376,518	139,672	$ 736,602	$ 56,470	7.7%
Bristol Transit System	6		9,110	116,629	222,533	70,388	$ 520,893	$ 24,238	4.7%
Danville Transit System	14	48,411	22,085	339,430	1,193,796	226,965	$ 1,104,571	$ 228,171	20.7%
Farmville Area Bus	14	7,372	12,939	257,192	n/a	121,764	$ 567,844	$ 13,055	2.3%
Virginia Regional Transit - City of Staunton*		20,000	7,175	86,330	187,718	93,709	$ 363,371	n/a	n/a
Virginia Regional Transit - Town of Culpeper		20,000	7,711	101,057	318,580	63,716	$ 399,402	$ 18,502	4.6%
Mean	11.3	24,357	12,740	182,825	459,829	119,369	$ 615,447	$ 68,087	8%

Transit Program	Trips/ Hour	Trips/ Mile	Cost/ Hour	Cost/ Mile
Winchester Transit	8.02	0.71	$ 42.28	$ 3.75
Bristol Transit System	7.73	0.60	$ 57.18	$ 4.47
Danville Transit System	10.28	0.67	$ 50.01	$ 3.25
Farmville Area Bus	9.41	0.47	$ 43.89	$ 2.21
Virginia Regional Transit - City of Staunton	13.06	1.09	$ 50.64	$ 4.21
Virginia Regional Transit - Town of Culpeper	8.26	0.63	$ 51.80	$ 3.95
	9.40	0.65	48.31	3.37

Source: Virginia Transit Performance Report, FY 2008 Data.
- Operating Data and Performance Indicators from "all modes combined" category
- Operating Expenses and Fare Revenue are systemwide

* No fare for this system.

Operating Budget

WinTran's approved operating budget for FY 2012 is $843,000, and is detailed in Table 3-3. This budget is slightly lower than the FY 2011 operating budget of $873,000 and the FY 2010 operating budget of $850,000.

Route Evaluation

This section of the report provides the detailed analysis of each fixed route, using primary data collected via boarding/alighting counts and passenger surveys. KFH Group staff hired temporary workers to ride each run of each route in November, 2010. The temporary workers recorded the boardings and alightings by stop for the entire WinTran system, conducted periodic time checks, and also administered passenger surveys. Weekday and Saturday data were collected and compiled. Table 3-4 provides the boarding and productivity data for all of the routes, as collected in November, 2010.

The total daily ridership recorded for the fixed routes was 502 passenger trips (weekday) and 256 passenger trips (Saturday). The average passenger trips per revenue hour were 9.65 (weekday) and 8.53 (Saturday). The scheduled routes average just over 13 miles per hour. The mean weekday ridership was 71 passenger trips, including the trolley route and 79 passenger trips without the Trolley route. Saturday ridership averaged 37 passenger trips per route including the Trolley route and 41 passenger trips without the trolley route. These ridership data equate to about 139,500 annual passenger trips, which is significantly higher than the projected FY11 ridership of 115,924.

The Apple Blossom Mall route exhibited the highest ridership and productivity among the fixed routes, with 111 passenger trips and 15.9 passenger trips per revenue hour recorded on the weekday count, and 68 passenger trips and 17 passenger trips per revenue hour recorded on the Saturday count. The Valley Avenue route was the second busiest route during the week (106 passenger trips), but not on Saturdays (36 passenger trips). The Trolley route exhibited the lowest ridership and productivity, both on the weekday and the Saturday counts. The Amherst route also exhibited ridership and productivity that were significantly lower than the mean (43 weekday passenger trips and 15 Saturday passenger trips).

Each route is further analyzed below, including high and low ridership bus stops by route, and ridership by time of day by route.

Table 3-3: WinTran Operating Budget, FY 2012

ACCOUNT DESCRIPTION	FY12 Approved Budget			
	Fixed-Route	**Paratransit**	**Trolley**	**Totals**
Salaries/Benefits				
Salaries	$262,687	$ 81,037	$ 40,000	$ 383,724
Benefits	$127,413	$ 43,563	$ 4,500	$ 175,476
Total Salaries/Benefits	**$390,100**	**$ 124,600**	**$ 44,500**	**$ 559,200**
Contractual Services				
Medical, Dental & Hosp	$3,200			$ 3,200
Repairs & Maintenance	$1,100			$ 1,100
Vehicle Repair/Maintenance	$0			$ -
Physicals, D/A		$ 600	$ 200	$ 800
Maint Service Contracts	$2,100			$ 2,100
Computer Hardware/ Softwar	$0			$ -
Printing & Binding	$6,000			$ 6,000
Local Media	$2,000			$ 2,000
Laundry and dry Cleaning	$6,000			$ 6,000
Total Contractual Services	**$20,400**	**$ 600**	**$ 200**	**$ 21,200**
Internal Services				
Fuel	$100,000	$ 25,000	$ 12,000	$ 137,000
Parts	$25,000	$ 5,000	$ 3,000	$ 33,000
Labor	$25,000	$ 5,000	$ 15,000	$ 45,000
Total Internal Services	**$150,000**	**$ 35,000**	**$ 30,000**	**$ 215,000**
Other Charges				
Electrical Services	$5,500			$ 5,500
Heating Services	$7,000			$ 7,000
Water and Sewer	$1,500			$ 1,500
Postal Services	$350			$ 350
Telecommunications	$1,400			$ 1,400
Property Insurance	$3,700			$ 3,700
Motor Vehicle Insurance	$15,000			$ 15,000
General Liability	$2,200			$ 2,200
Table 3-XX, Continued				
Office Equipment	$500			$ 500
Mileage	$100			$ 100
Subsistence	$800			$ 800
Dues & Assoc Memberships	$550			$ 550
Office Supplies	$2,500			$ 2,500

Table 3-3: WinTran Operating Budget, FY 2012

ACCOUNT DESCRIPTION	FY12 Approved Budget			
Food & Food Services	$500			$ 500
Laundry & Janitorial	$2,000			$ 2,000
Bldg Repair/ Maintenance	$300			$ 300
Vehicle/Equipment Supplies	$200			$ 200
Other Operating Supplies	$2,000			$ 2,000
Computer Hardware/Software	$1,500			$ 1,500
Total Other Charges	**$47,600**			**$ 47,600**
Totals	**$608,100**	**$160,200**	**$74,700**	**$843,000**

Table 3-4: WinTran Operating Statistics Based on Boarding/Alighting Counts and System Data

Route	Weekday Ridership	Weekday Revenue Hours	Weekday Vehicle Trips	Weekday Revenue Miles	Saturday Ridership	Saturday Revenue Hours	Saturday Vehicle Trips	Saturday Revenue Miles
Amherst	43	7.00	14.00	75.60	15	4	8	43.2
South Loudoun	65	7.00	14.00	128.80	49	4	8	73.6
Berryville Ave.	70	7.00	14.00	72.80	43	4	8	41.6
Valley Ave.	106	7.00	14.00	99.40	36	4	8	56.8
Apple Blossom Mall	111	7.00	14.00	89.60	68	4	8	51.2
Northside	78	7.00	14.00	124.60	34	4	8	71.2
Trolley	29	10.00	10.00	93.00	11	6	6	55.8
Totals	**502**	**52.00**	**94.00**	**683.80**	**256**	**30.00**	**54.00**	**393.40**

Route	Weekday Pass. Trips/ Hour	Weekday Pass. Trips/ Mile	Weekday Miles/ Hour	Saturday Pass. Trips/ Hour	Saturday Pass. Trips/ Mile	Saturday Miles/ Hour
Amherst	6.14	0.57	10.8	3.75	0.35	10.8
South Loudoun	9.29	0.50	18.4	12.25	0.67	18.4
Berryville Ave.	10.00	0.96	10.4	10.75	1.03	10.4
Valley Ave.	15.14	1.07	14.2	9	0.63	14.2
Apple Blossom Mall	15.86	1.24	12.8	17	1.33	12.8
Northside	11.14	0.63	17.8	8.50	0.48	17.8
Trolley	2.90	0.03	9.3	1.83	0.20	9.3
System Mean	**9.65**	**0.73**	**13.15**	**8.53**	**0.65**	**13.11**

Amherst

There were 43 passenger trips on the Amherst route during the weekday passenger count and 15 passenger trips during the Saturday count. These count numbers are well below the fixed-route mean of 71 weekday trips and 37 Saturday trips. The Amherst route was the lowest performing route among the six regular fixed routes, providing 6.14 passenger trips per revenue hour during the week and 3.75 passenger trips per revenue hour on Saturday.

The Boscawen Street transfer point and the Winchester Medical Center were the two most active passenger stops during the week, as shown in Figure 3-1. Ridership fluctuated throughout the day, with the peak ridership occurring at 11:00 a.m. and at 1:30 p.m. Figure 3-2 displays the ridership pattern by time of day.

South Loudoun

There were 65 passenger trips recorded on the South Loudoun route during the weekday passenger count and 49 passenger trips during the Saturday count. The weekday count number was just below the fixed-route mean of 71 passenger trips, and the Saturday count was well above the fixed-route mean of 37 passenger trips. The productivity of the route was higher on Saturday (12.25 passenger trips per hour) than it was during the week (9.29 passenger trips per hour).

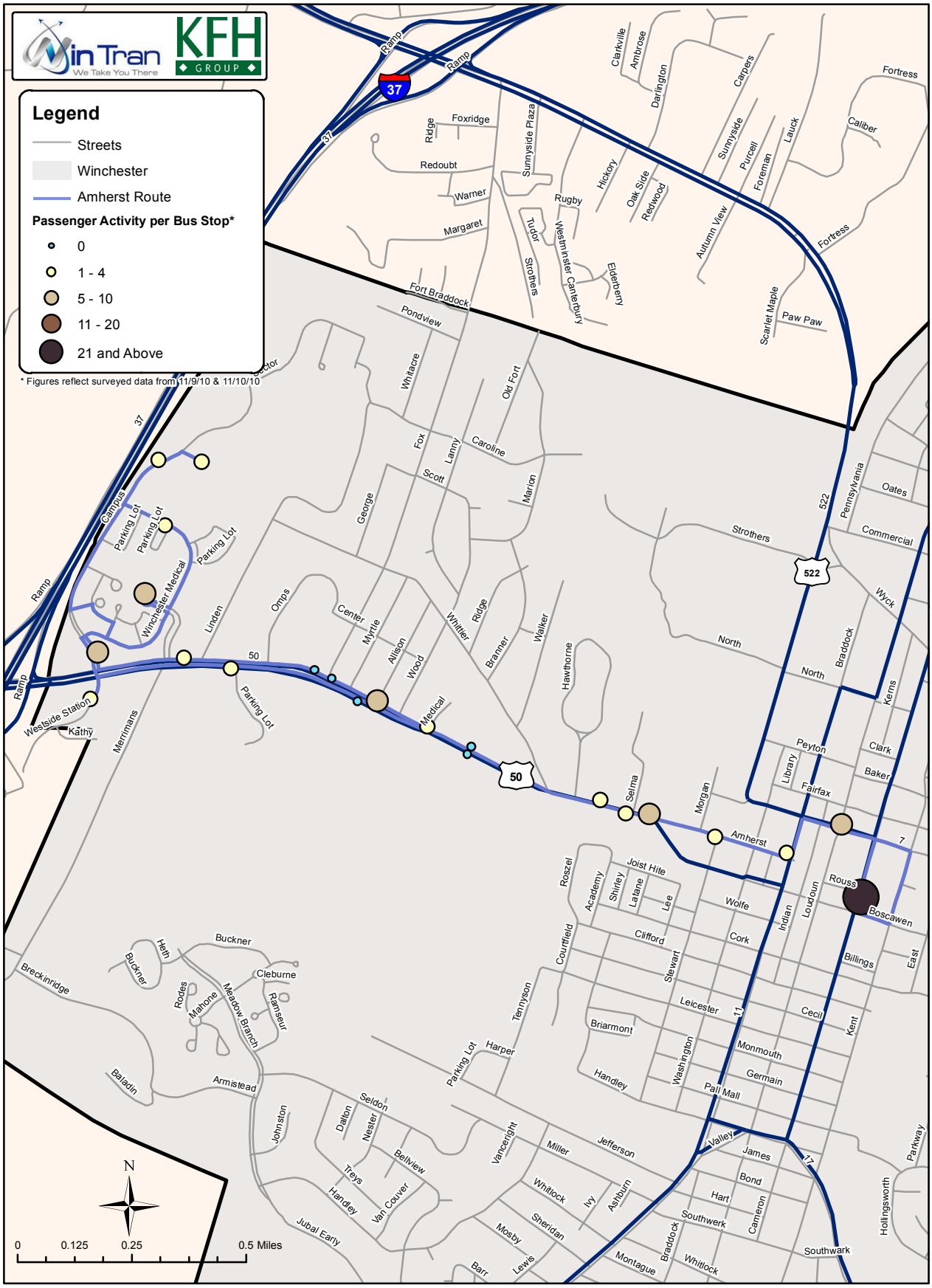
The Boscawen Street transfer point was the most active weekday stop along the route, followed by the South Loudoun/Bellview stop. Figure 3-3 displays the weekday activity by stop for the South Loudoun route. The weekday ridership pattern showed peaks at 9:30 a.m. and 11:30 a.m., while the Saturday ridership pattern showed a peak at 9:30 a.m. and a larger peak at 4:00 p.m. Figure 3-4 displays the ridership pattern by time of day.

Berryville Avenue

The 70 weekday passenger trips recorded on the Berryville Route were just under the fixed route mean of 71 weekday passenger trips. The Saturday count was 43, which was above the Saturday mean of 37 trips. Weekday productivity on the Berryville route was 10 passenger trips per hour and Saturday productivity was 10.75 passenger trips per hour.

The Boscawen Street transfer point was the most active weekday stop along the route, followed by Berryville Ave/CVS and Cork/Kent Streets. Figure 3-5 displays the weekday activity by stop for the route. The ridership peaks for the Berryville route during the week were at 4:00 p.m. and 3:00 p.m., while the Saturday peak was at noon. Ridership by time of day is shown in Figure 3-6.

Figure 3-1: Passenger Activity for Amherst Route



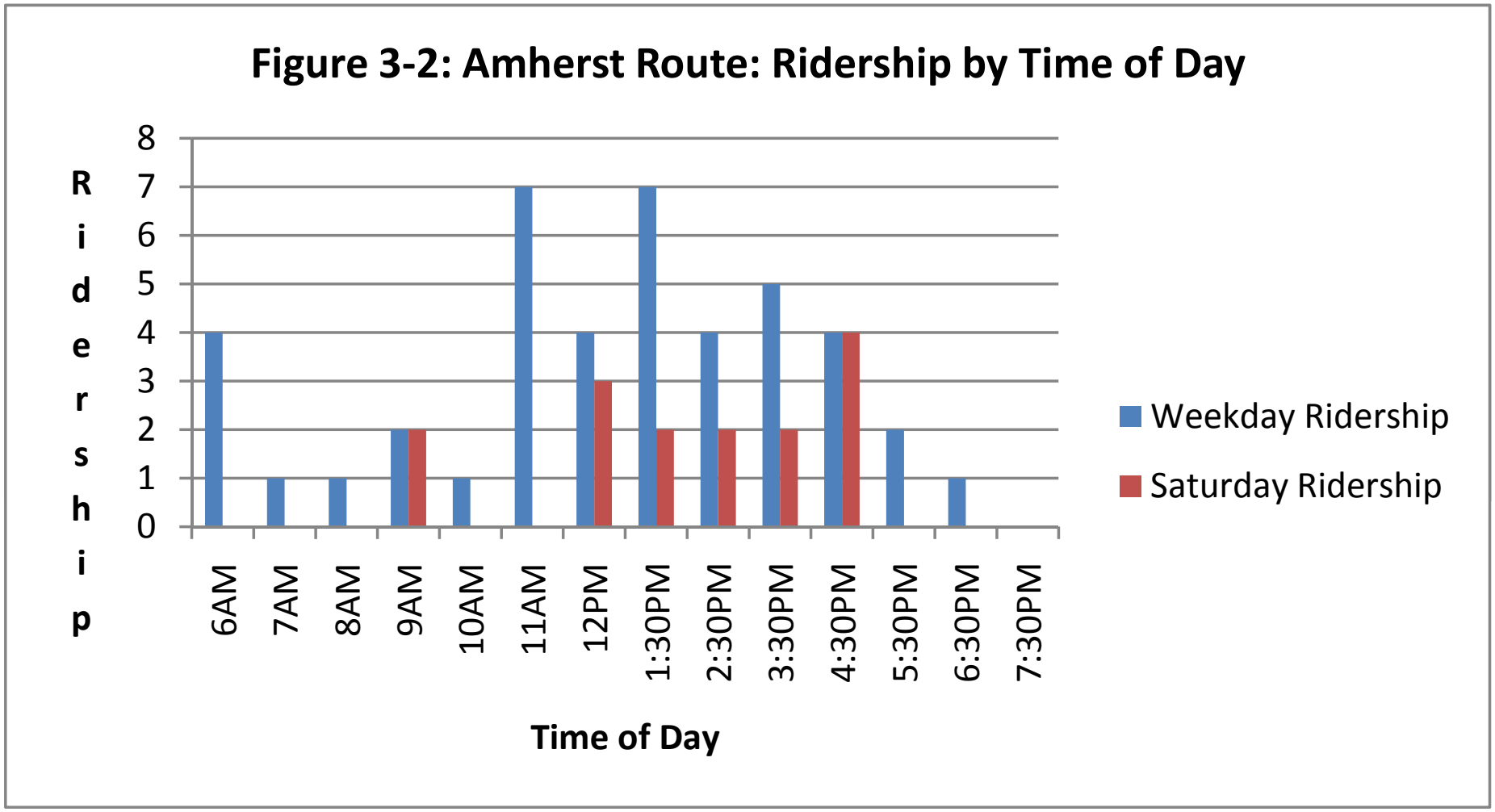
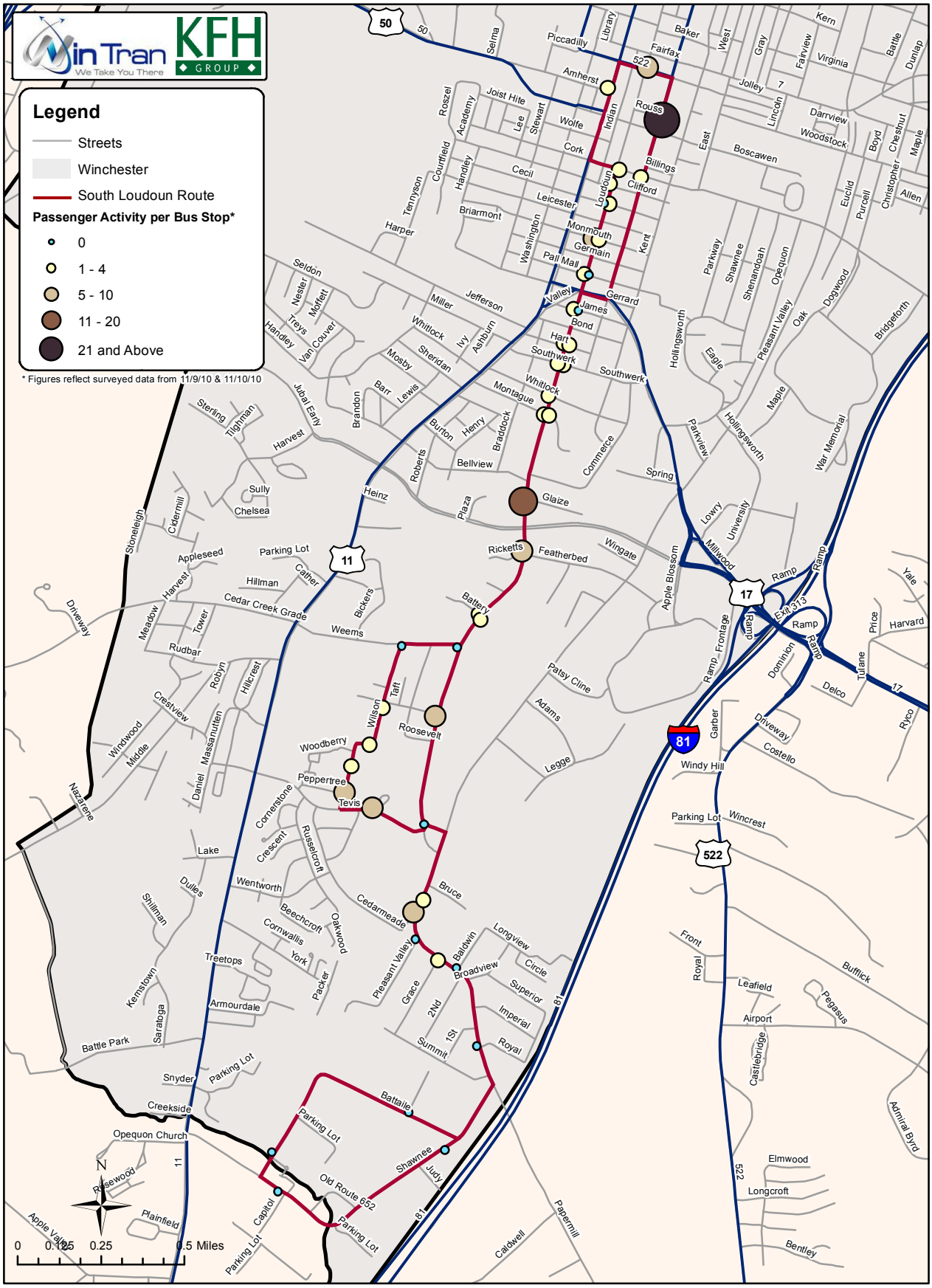


Figure 3-2: Amherst Route: Ridership by Time of Day
Ridership
0
1
2
3
4
5
6
7
8
6AM
7AM
8AM
9AM
10AM
11AM
12PM
1:30PM
2:30PM
3:30PM
4:30PM
5:30PM
6:30PM
7:30PM
Time of Day
Weekday Ridership
Saturday Ridership

Figure 3-3: Passenger Activity for South Loudoun Route



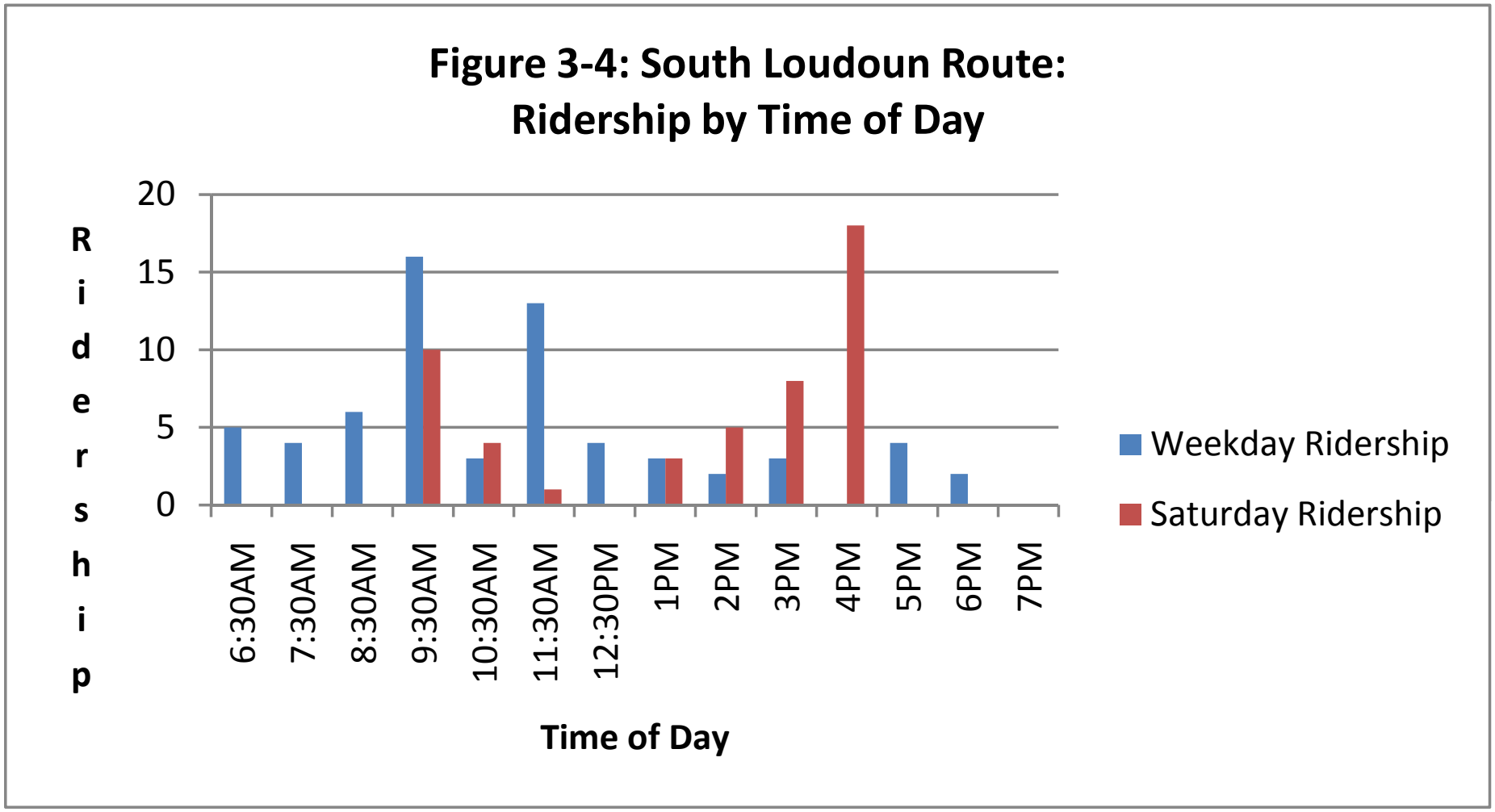
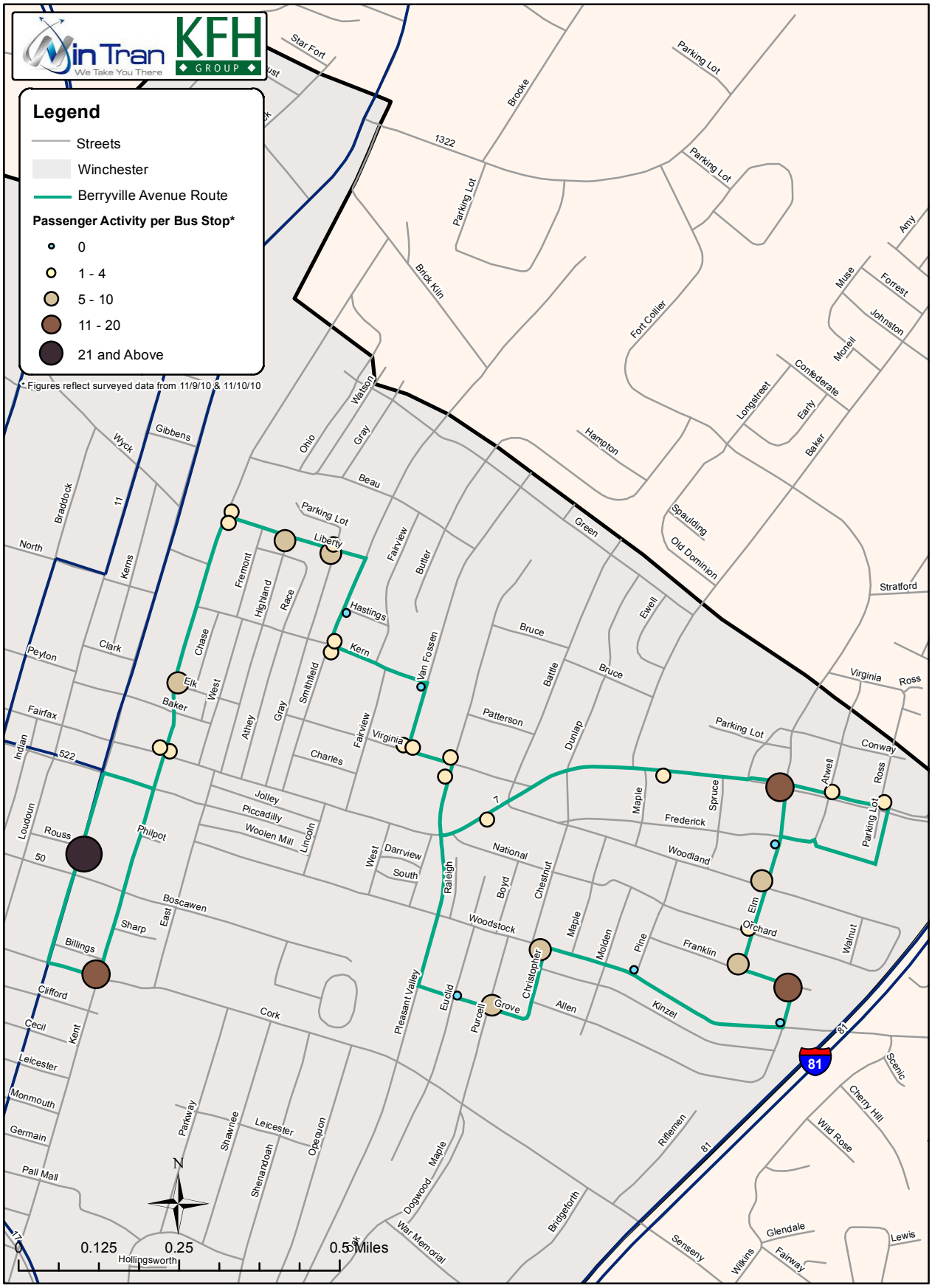


Figure 3-4: South Loudoun Route:
Ridership by Time of Day
Ridership
20
15
10
5
0
6:30AM
7:30AM
8:30AM
9:30AM
10:30AM
11:30AM
12:30PM
1PM
2PM
3PM
4PM
5PM
6PM
7PM
Time of Day
Weekday Ridership
Saturday Ridership

Figure 3-5: Passenger Activity for Berryville Avenue Route



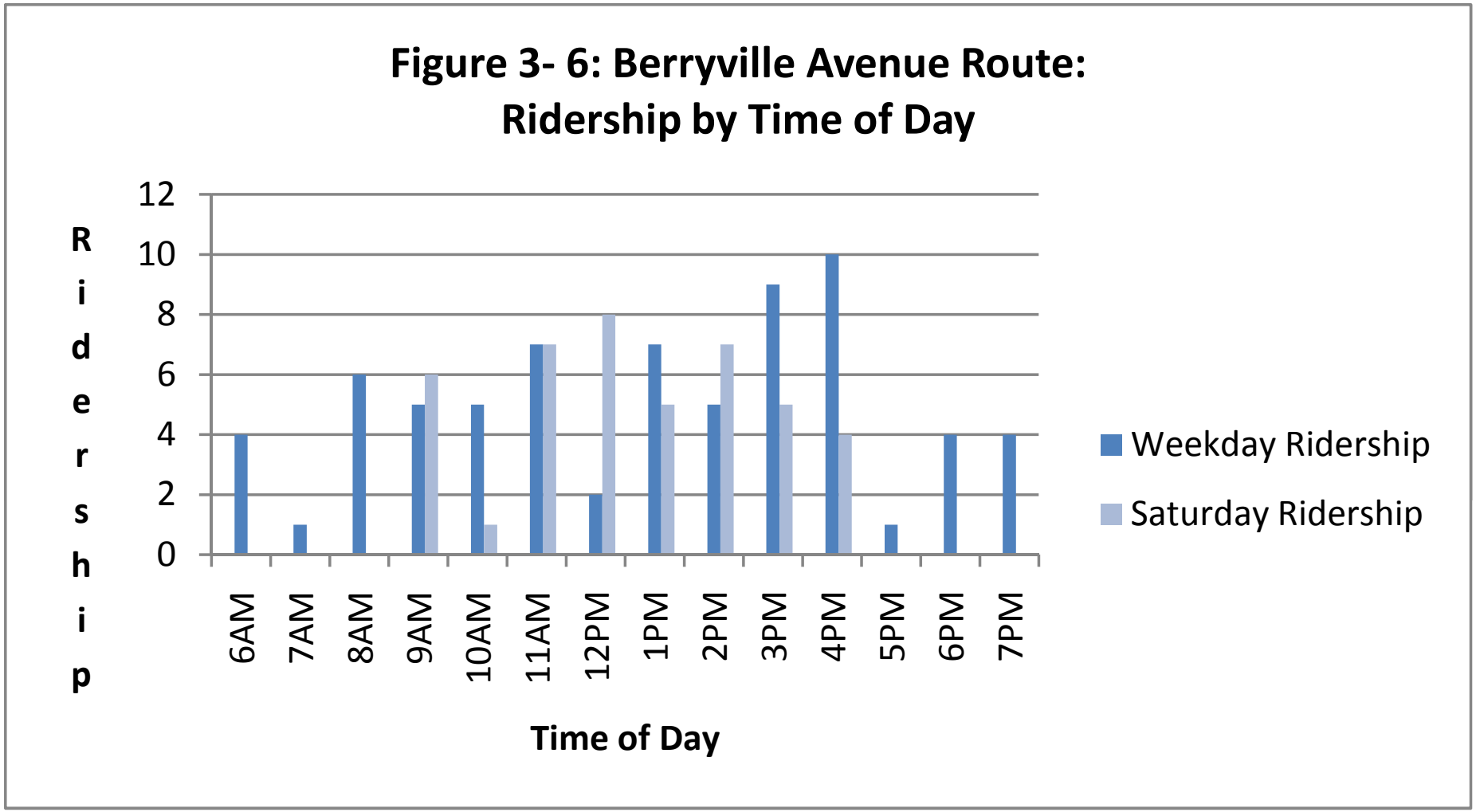


Figure 3- 6: Berryville Avenue Route:
Ridership by Time of Day
Ridership
12
10
8
6
4
2
0
6AM
7AM
8AM
9AM
10AM
11AM
12PM
1PM
2PM
3PM
4PM
5PM
6PM
7PM
Time of Day
Weekday Ridership
Saturday Ridership

Valley Avenue

Weekday ridership on the Valley Avenue route was 106 passenger trips during the count period and Saturday ridership was 36. The weekday ridership was the second highest of the fixed routes and significantly higher than the mean of 71. Productivity on the Valley Avenue route was 15.14 passenger trips per hour for the weekday count and nine passenger trips per hour on Saturday.

The Boscawen Street transfer point was the busiest stop along the route, followed by Ward's Plaza. Figure 3-7 shows the ridership by stop for the route. There were two fairly significant peaks on this route during the week, one at 7:30 a.m. and one at 2:30 p.m. Saturday ridership patterns indicated 9:30 a.m. and 3:30 p.m. peaks. The ridership by time of day is shown in Figure 3-8.

Apple Blossom Mall

The Apple Blossom Mall route was the busiest route in the WinTran network, both on weekdays and Saturdays. The weekday ridership was 111 passenger trips and the Saturday ridership was 68 passenger trips. Both of these ridership counts are well above the fixed route mean of 71 (weekday) and 37 (Saturday). Productivity on the Apple Blossom Mall route was also the highest among the fixed routes, recording 15.86 passenger trips per hour during the week and 17 passenger trips per hour on Saturday.

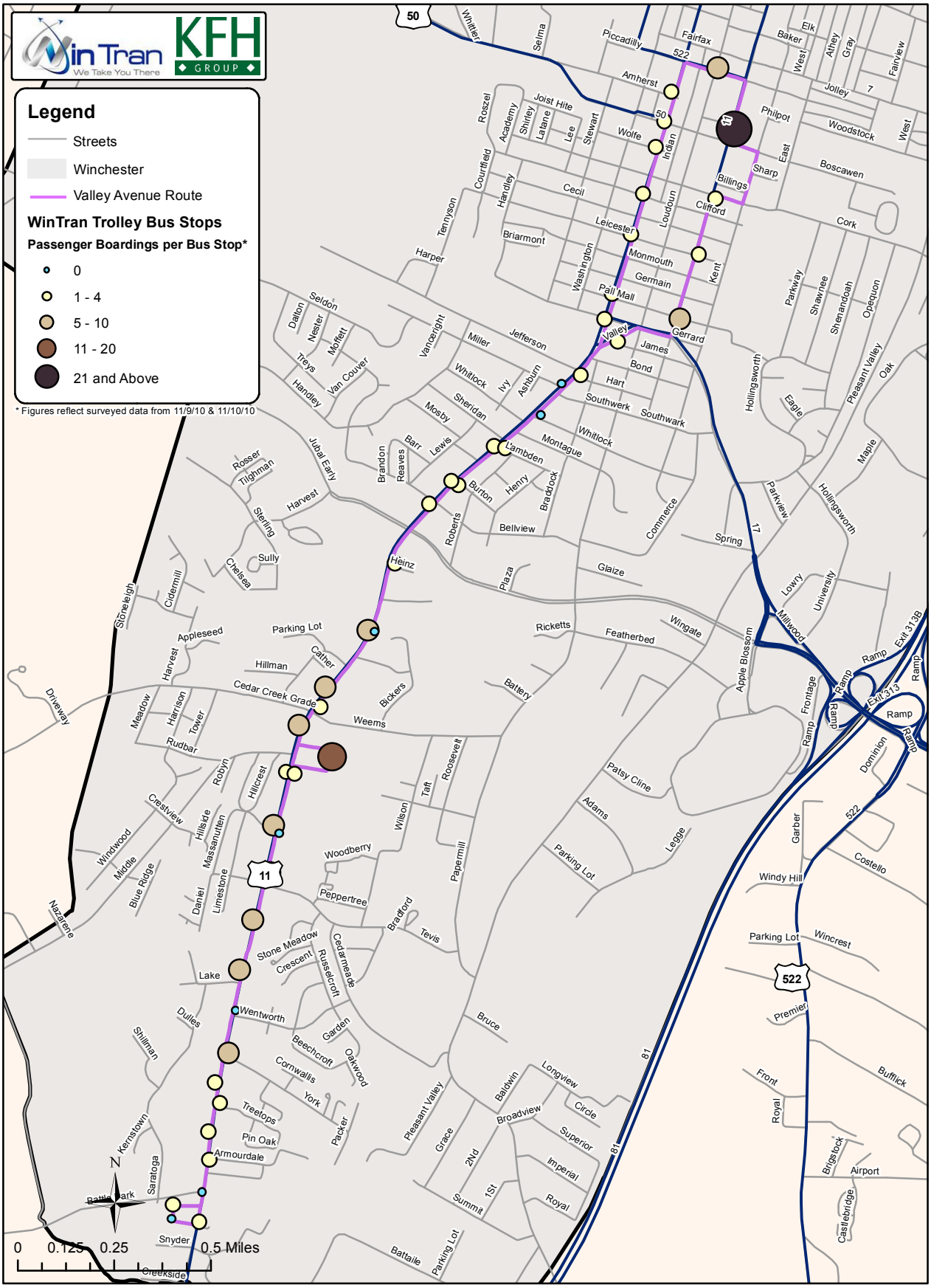
As shown in Figure 3-9, the Walmart stop had the most activity, followed by the Boscawen Street transfer point. Ridership was much higher on the route in the afternoon, as shown in Figure 3-10 with the 4:00 p.m. run recording the highest ridership.

Northside

The Northside route recorded 78 passenger trips during the weekday count, which was higher than the mean ridership of 71 weekday passenger trips. Saturday ridership on the Northside route was lower than the mean at 34 passenger trips. Weekday productivity was just over 11 passenger trips per revenue hour and Saturday productivity was 8.5 passenger trips per revenue hour.

The Boscawen Street transfer point recorded the highest ridership among the Northside bus stops, as shown in Figure 3-11. For both weekdays and Saturday, ridership was higher in the morning, peaking at 9:30 a.m. for both days. Ridership by time of day is shown in Figure 3-12.

Figure 3-7: Passenger Activity for Valley Avenue Route



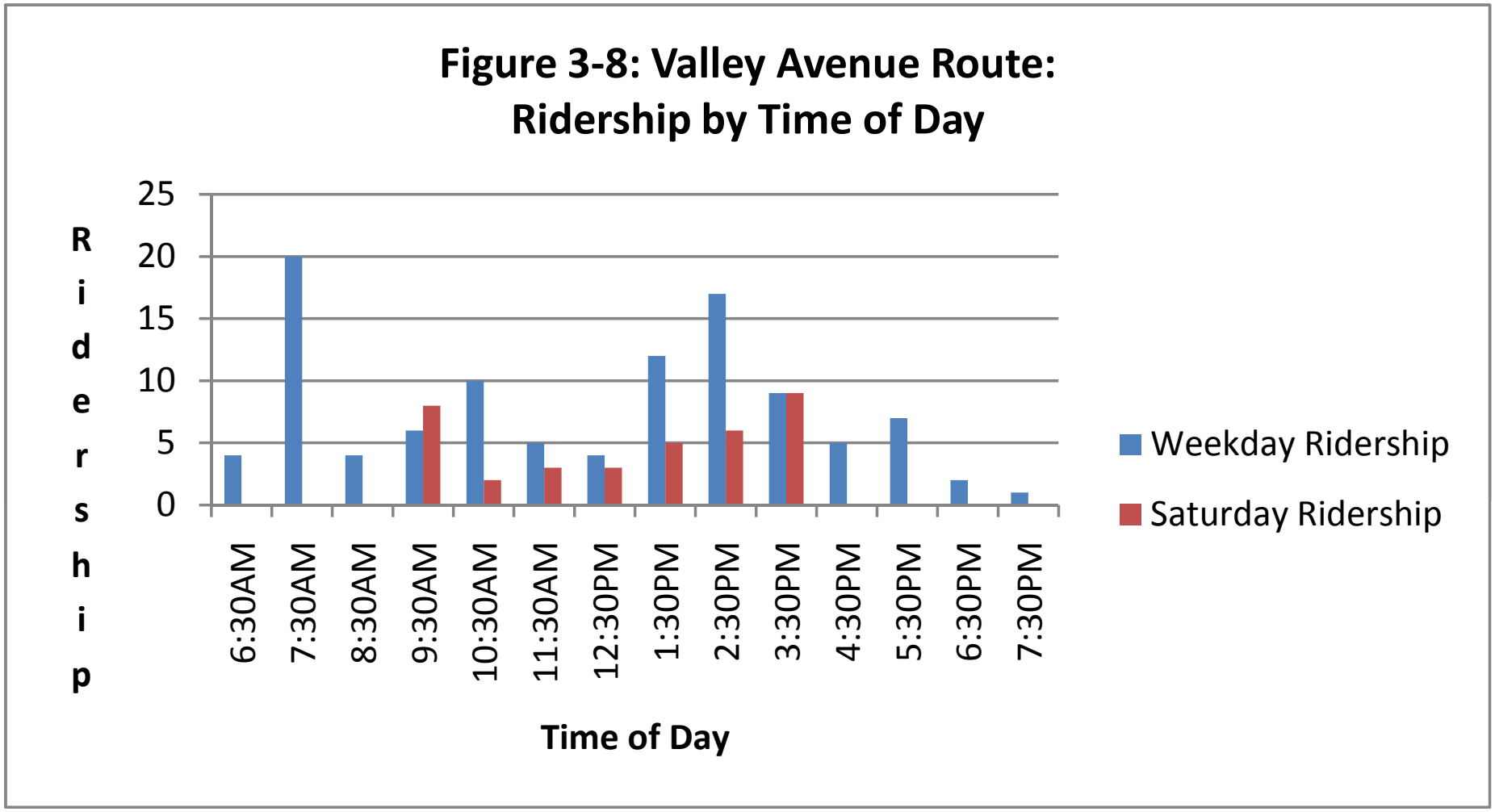
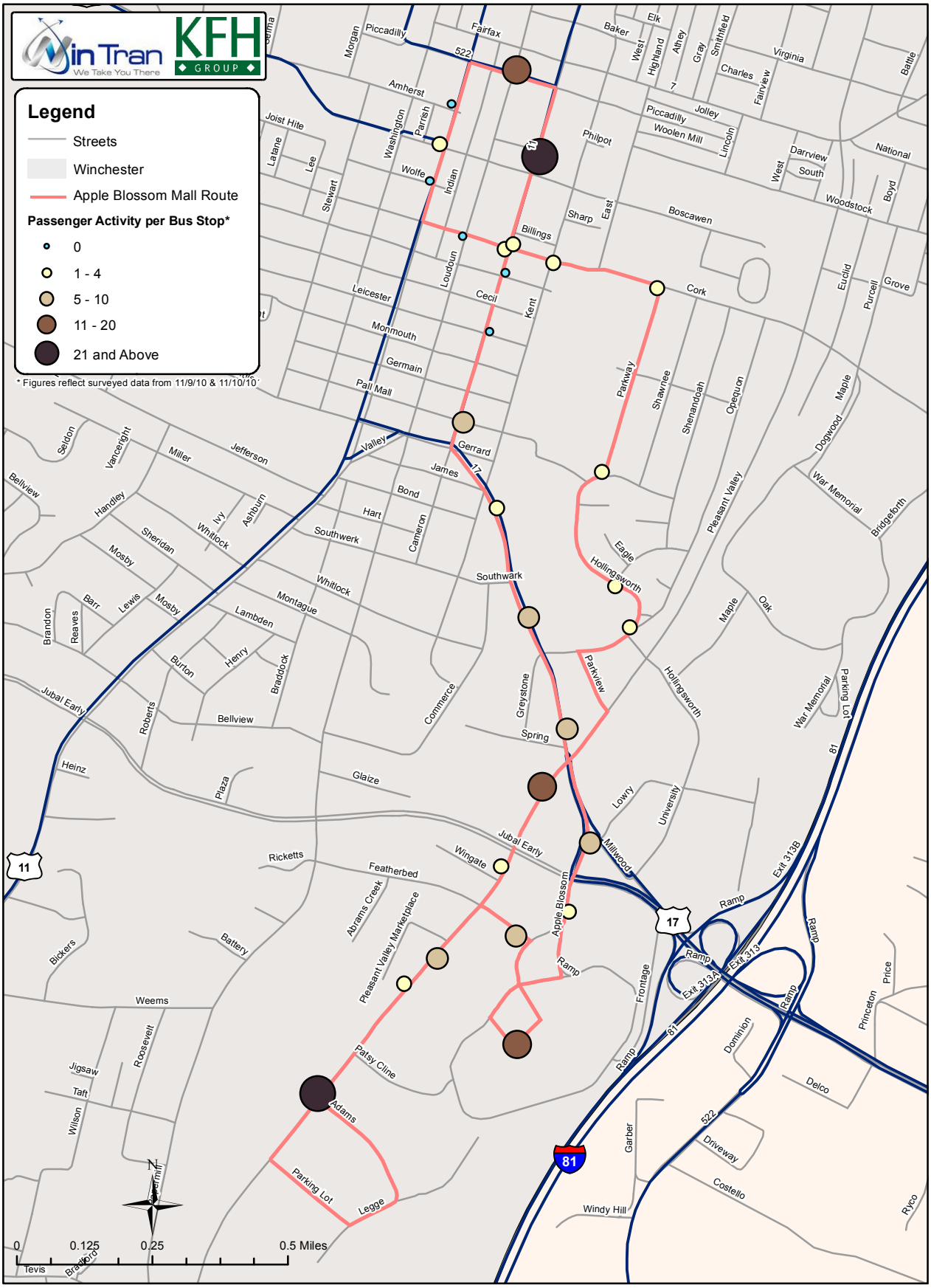


Figure 3-8: Valley Avenue Route:
Ridership by Time of Day
Ridership
25
20
15
10
5
0
6:30AM
7:30AM
8:30AM
9:30AM
10:30AM
11:30AM
12:30PM
1:30PM
2:30PM
3:30PM
4:30PM
5:30PM
6:30PM
7:30PM
Time of Day
Weekday Ridership
Saturday Ridership

Figure 3-9: Passenger Activity for Apple Blossom Mall Route



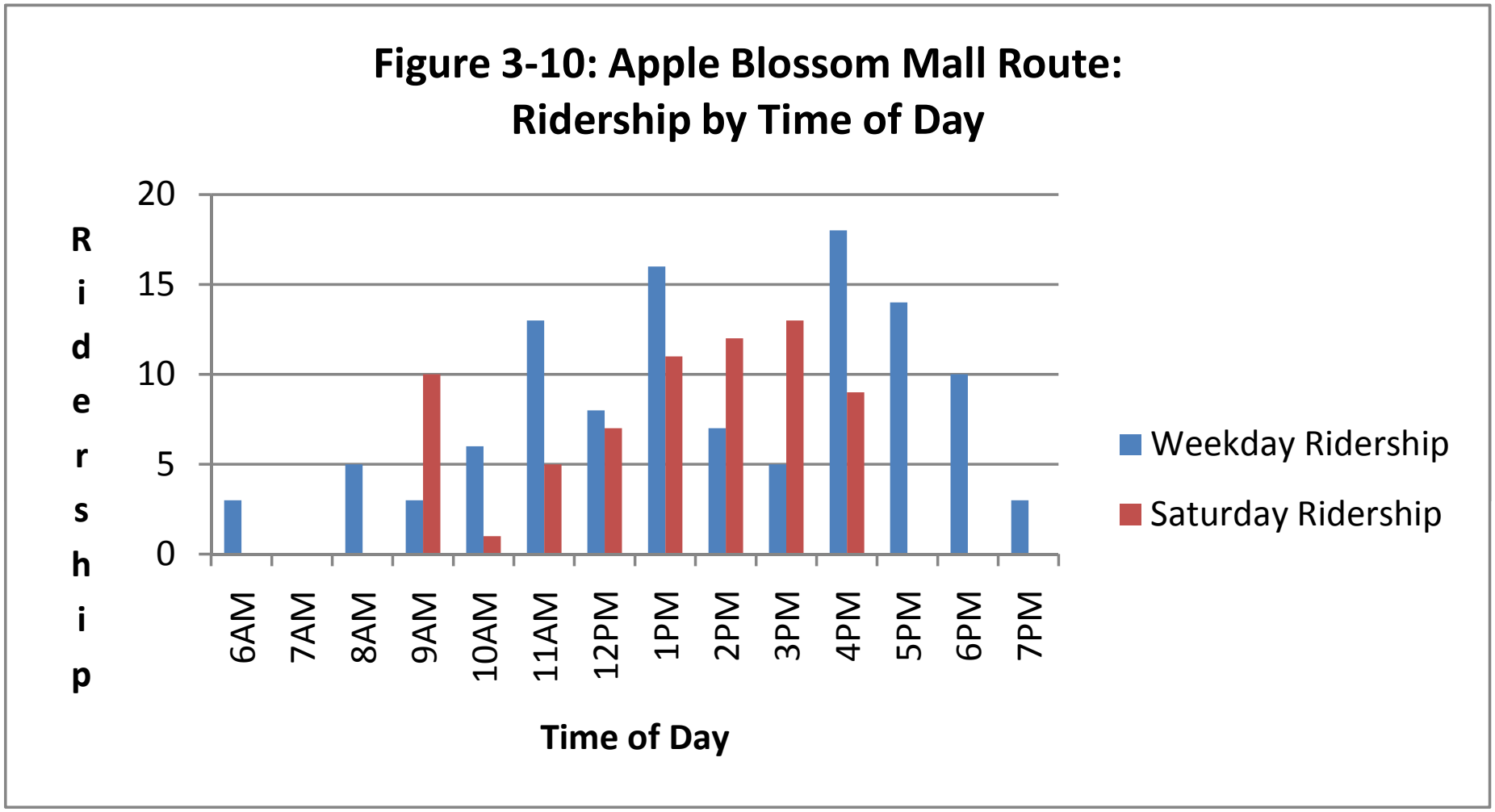
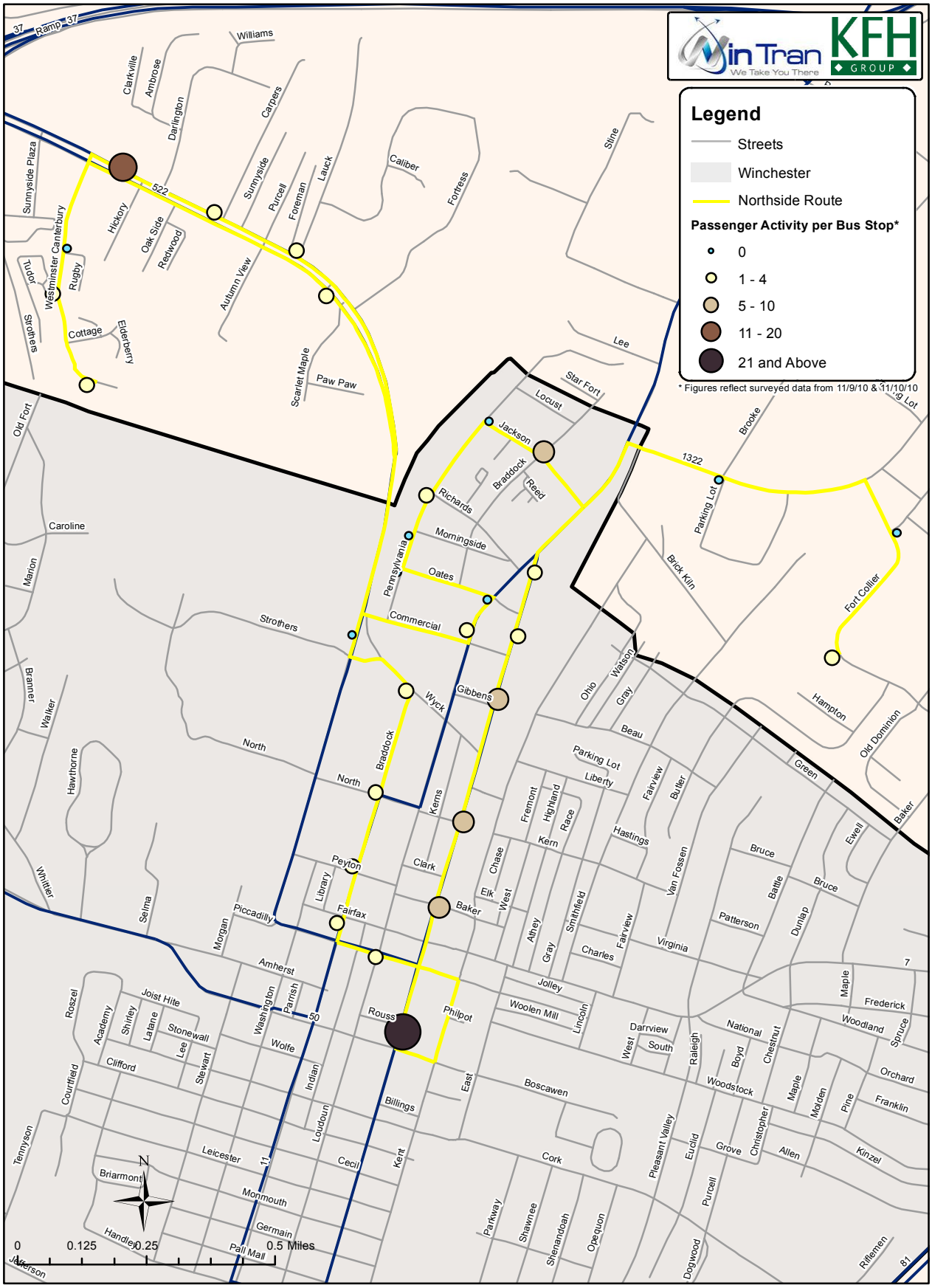


Figure 3-10: Apple Blossom Mall Route:
Ridership by Time of Day
Ridership
20
15
10
5
0
6AM
7AM
8AM
9AM
10AM
11AM
12PM
1PM
2PM
3PM
4PM
5PM
6PM
7PM
Time of Day
Weekday Ridership
Saturday Ridership

Figure 3-11: Passenger Activity for Northside Route



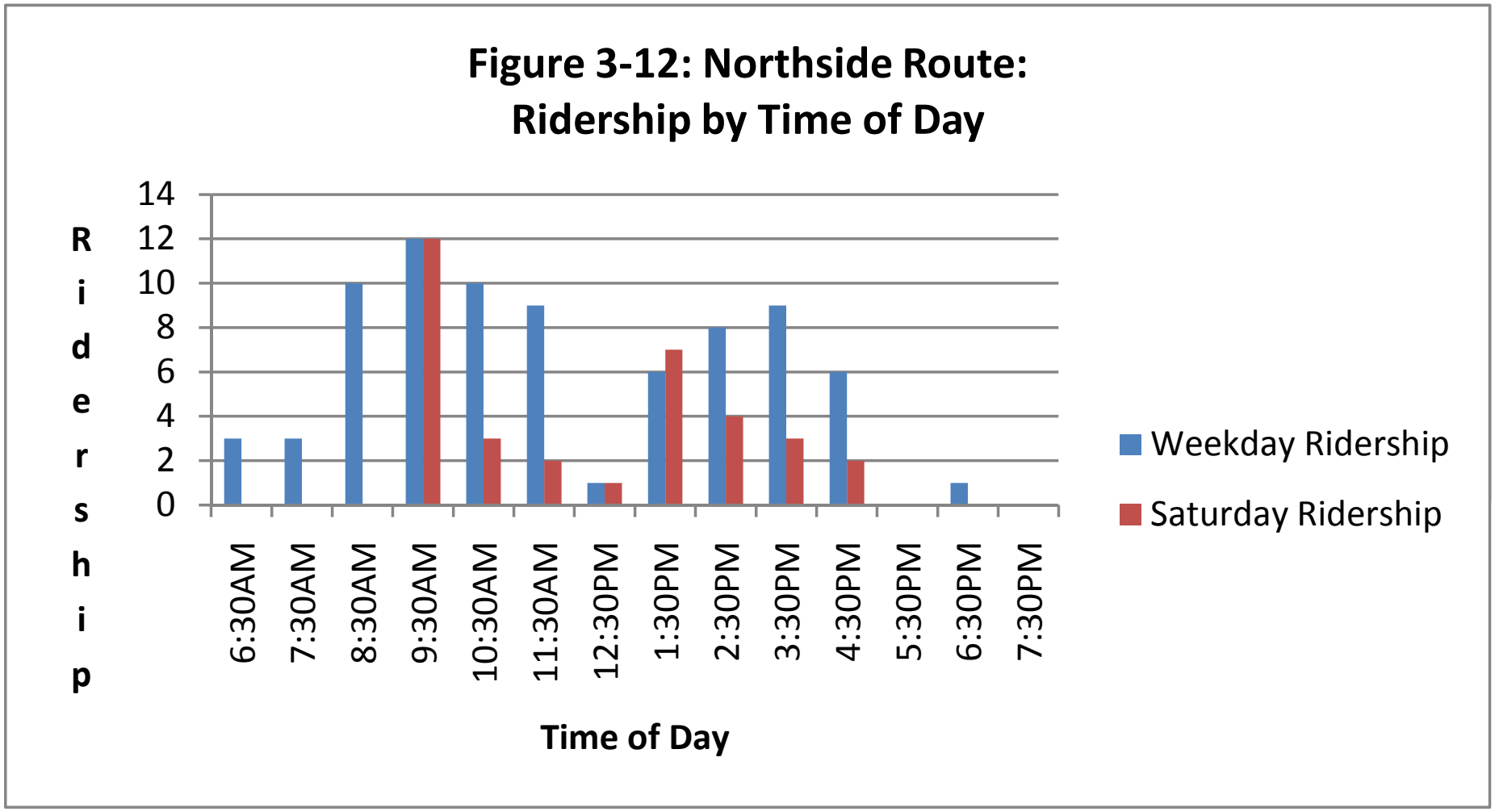


Figure 3-12: Northside Route:
Ridership by Time of Day
Ridership
14
12
10
8
6
4
2
0
6:30AM
7:30AM
8:30AM
9:30AM
10:30AM
11:30AM
12:30PM
1:30PM
2:30PM
3:30PM
4:30PM
5:30PM
6:30PM
7:30PM
Time of Day
Weekday Ridership
Saturday Ridership

Trolley

Ridership and productivity on the Trolley route was the lowest among the fixed routes, recording only 29 passenger trips for the weekday count (2.9 trips per hour) and 11 passenger trips on Saturday (1.83 trips per hour). Both of these ridership counts are less than half of the system mean ridership.

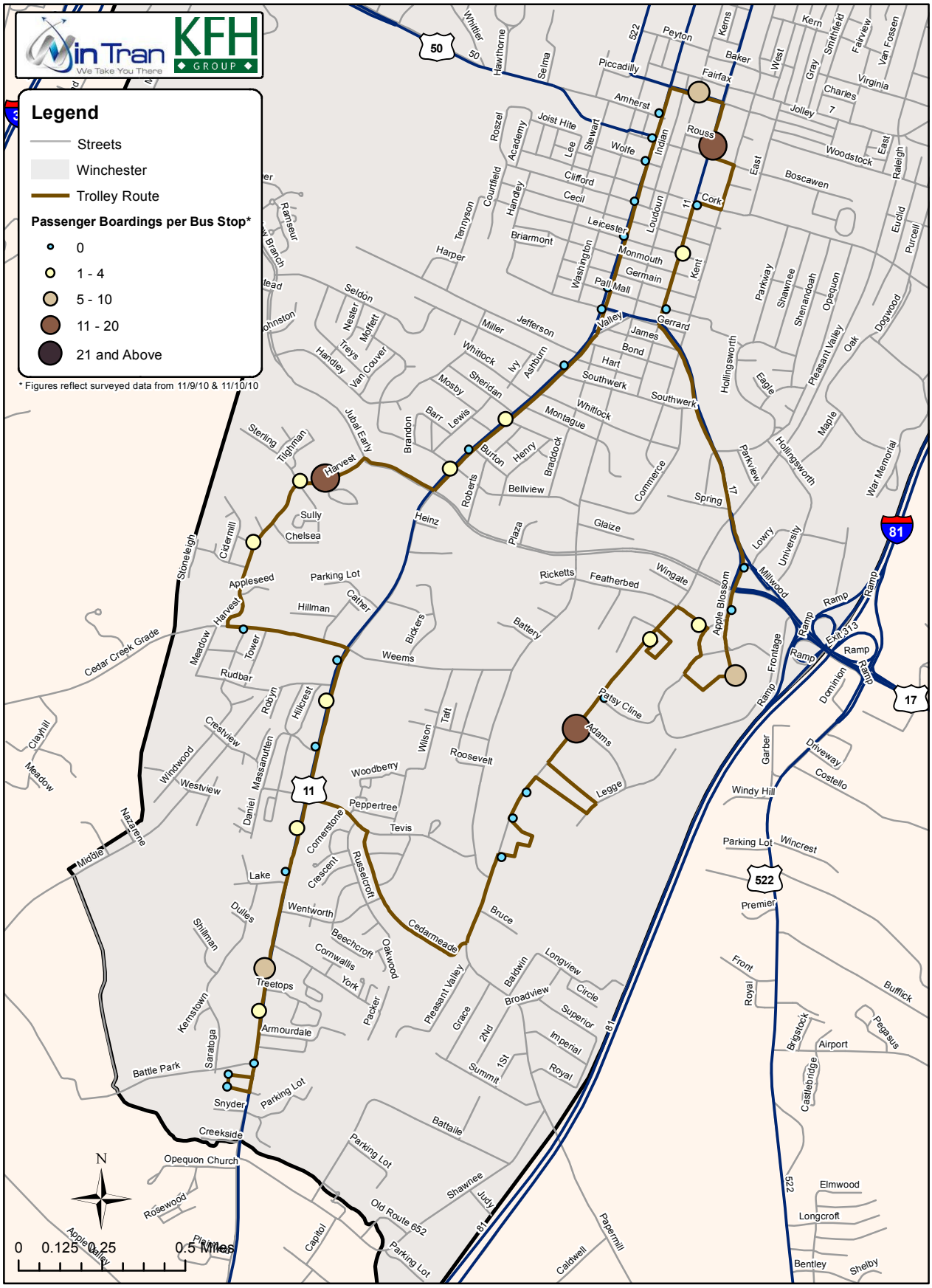
The most active stops on the route were the Boscawen Street transfer point, the Walmart, and the Willows. Ridership by stop is shown in Figure 3-13. The 11:00 a.m. run on the weekday had the highest passenger count (10 passengers), followed by the 12:00 p.m. run on Saturday. Figure 3-14 shows the ridership by time of day for the Trolley route.

Time Analysis

In addition to the boarding/alighting counts, the temporary workers also conducted periodic time checks to help determine if the routes were running on schedule. These data produced the following results by route:

- Amherst: This route was generally on time during the data collection period.
- S. Loudoun: This route got about 5 minutes behind by the end of each run, particularly mid-day.
- Berryville: This route was generally on-time, though it was occasionally early at Grove Street and was late on the mid-day run, which may have been during the shift change.
- Valley Avenue: This route got about 5 minutes behind by the end of each run.
- Apple Blossom Mall: This route got about 5 minutes behind by the end of each run and was 10 minutes behind at the end of the 5:00 p.m. run.
- Northside: This route got about 5 minutes behind by the end of several runs.
- Trolley: There were several inconsistencies with the Trolley schedule, including the following: the Trolley was early during the morning runs at both Walmart and the Apple Blossom Mall; the 1:00 p.m. run did not leave until 1:17 p.m.; the Trolley generally ran late in the afternoon.

Figure 3-13: Passenger Activity for Trolley Route



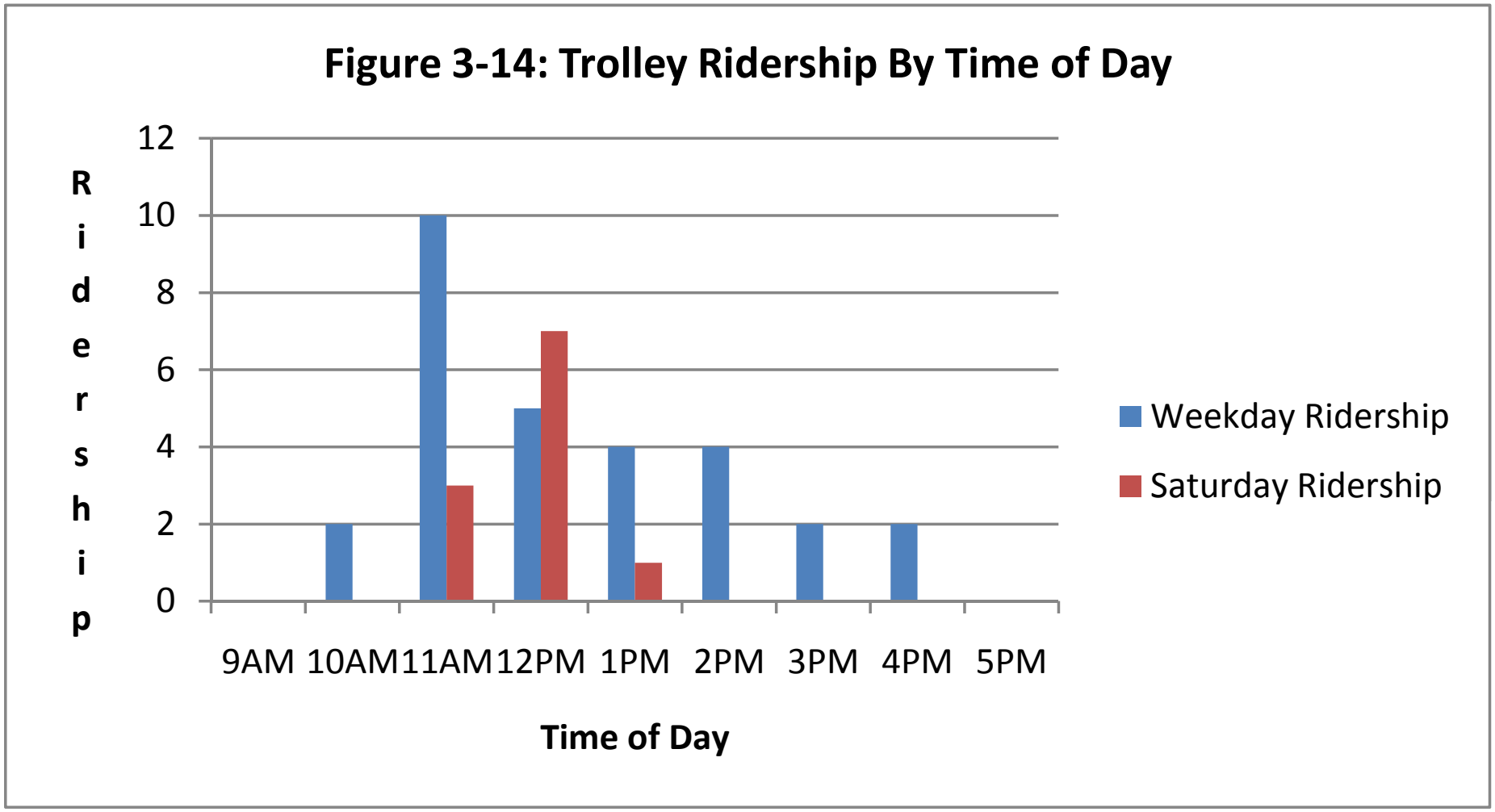


Figure 3-14: Trolley Ridership By Time of Day
Ridership
12
10
8
6
4
2
0
9AM
10AM
11AM
12PM
1PM
2PM
3PM
4PM
5PM
Time of Day
Weekday Ridership
Saturday Ridership

On-Board Rider Survey

An essential task within the WinTran TDP process was the acquisition of more information about current public transportation trip patterns, rider characteristics, rider satisfaction with the service, and suggestions for service improvements from the riders. In order to collect these data, an on-board rider survey was conducted. The surveys were administered in conjunction with the process of amassing boarding/alighting passenger counts (November 9th, 10th, and 13th, 2010). Temporary employees rode the buses and distributed the two-page survey among bus riders during their trips. Survey participants were instructed to only complete one survey. A copy of this survey is provided as Appendix A. Results of the survey are described below, while Table 3-5 offers an overview of these findings.

Trip Patterns of Surveyed Riders

The WinTran on-board rider survey was completed by 136 passengers. Of these respondents, nearly one-quarter rode the South Loudon route (23.53%), with the Valley Avenue route (17.65%), Berryville Avenue route (16.91%), and the Apple Blossom Mall route (16.18%) also providing significant responses. The vast majority of surveyed riders arrived at their particular bus stops by walking (92.65%), whereas no riders reached their starting place via bicycle or personal automotive travel. This finding is consistent with the responses to the question inquiring about the utilized mode for completion of the trip, where most riders (77.94%) walked to their final destination. According to the survey, the most popular origin for a rider to enter the bus system was at the Wilson Boulevard location, followed by the Court House, and the Walmart bus stop. In contrast, the survey found the most common destination to be Walmart, followed by the Apple Blossom Mall, and the Court House.

Nearly two out of five survey respondents (38.97%) were using the WinTran bus service as transportation to or from their place of employment. Additionally, a number of those surveyed (30.88%) were utilizing the bus service for shopping purposes, with nearly one-fifth of riders (18.38%) using WinTran for medical purposes. To complete the surveyed bus trip, one-half of the respondents were able to do so without having to transfer to another bus, while less than 5% had to transfer multiple times to complete their trip. Of the 45.59% of riders surveyed that needed at least one transfer to complete their bus trip, the most popular route involved in either portion of the transfer was the Apple Blossom route (14.71%), followed by the Berryville Avenue route (7.35%), and the Amherst route (6.62%).

Rider Characteristics

In addition to attaining information pertaining to the travel patterns of WinTran riders, the survey also sought to capture a better understanding of rider demographics.

Table 3-5: Winchester Transit On-Board Rider Survey Summary

Surveying conducted on November 9th, 10th, and 13th, 2010

Q1: What bus route are you currently riding?

Berryville Avenue:	16.91%	Northside:	8.09%
Valley Avenue:	17.65%	South Loudoun:	23.53%
Apple Blossom Mall	16.18%	Trolley:	5.15%
Amherst:	6.62%	(No response):	5.88%

Q2: How did you get from your starting place to the bus stop for this trip?

Walked:	92.65%	Dropped off by someone:	2.21%
Bicycled:	0.00%	Other:	1.47%
Drove car and parked:	0.00%	(No response):	3.68%

Q3: What was the location where you boarded this bus?

#1:	Wilson Boulevard
#2:	Court House
#3:	Wal-Mart

Q4: Did you or will you have to transfer buses in order to complete this trip?

Yes, one transfer:	41.18%	No:	50.00%
Yes, two or more transfers:	4.41%	(No response):	4.41%

Q5: What bus route(s) will you transfer to or did you transfer from?

Berryville Avenue:	7.35%	Northside:	2.94%
Valley Avenue:	5.88%	South Loudoun:	3.68%
Apple Blossom Mall	14.71%	Trolley:	0.74%
Amherst:	6.62%	(No response):	58.09%

Q6: How will you get to your ending place from the last bus you ride for this trip?

Walk:	77.94%	Picked up by Someone:	4.41%
Bicycle:	0.74%	Other:	3.68%
Drive my car:	0.00%	(No response):	13.24%

Q7: What is your destination?

#1:	Wal-Mart
#2:	Apple Blossom Mall
#3:	Court House

Q8: What is the purpose of your bus trip today? (You may check more than one)

Work:	38.97%	Medical:	18.38%
Shopping:	30.88%	Government Service Agency:	8.82%
School:	7.35%	Other:	11.03%
Social/Recreation:	11.76%	(No response):	2.21%

Q9: If WinTran were to make service improvements, what would be your top three choices?

#1:	Extended service hours
#2:	Addition of Sunday service
#3:	Increased frequency of service
#4:	Addition of shelters and benches
#5:	Additional routes and stops

Q10: If WinTran were to serve additional areas, what would be your top three choices?

#1:	Wal-Mart
#2:	Martin's Food Market
#3:	Outside of Winchester
#4:	Department of Motor Vehicles
#5:	Berryville

Table 3-5: Winchester Transit On-Board Rider Survey Summary

Q11: Please rate your satisfaction with WinTran services in the following areas:

	VS	S	U	VU
On-time performance:	48.36%	43.44%	4.92%	3.28%
Convenience of bus routes:	40.83%	46.67%	7.50%	5.00%
Convenience of bus stops:	42.86%	41.18%	12.61%	3.36%
Days of service:	43.44%	36.89%	13.11%	6.56%
Hours of service:	36.13%	35.29%	19.33%	9.24%
Frequency of service:	44.92%	37.29%	13.56%	4.24%
Cost of bus fare:	44.72%	41.46%	8.94%	4.88%
Cleanliness of the buses:	49.17%	40.00%	7.50%	3.33%
Driver courtesy:	60.16%	32.52%	2.44%	4.88%
Availability of information:	45.53%	40.65%	8.94%	4.88%
Safety and security:	49.17%	46.67%	1.67%	2.50%
Telephone customer service:	40.19%	45.79%	7.48%	6.54%
Usefulness of WinTran websi	48.00%	45.00%	3.00%	4.00%

Q12: How would you classify yourself?

African American:	24.26%	Native American:	4.41%
Asian American:	1.47%	Other:	8.82%
Caucasian:	41.91%	(No response):	10.29%
Hispanic/Latino:	8.82%		

Q13: Are you (Gender):

Male:	34.56%	(No response):	11.03%
Female:	54.41%		

Q14: Do you have a driver's license?

Yes:	9.56%	(No response):	44.85%
No:	45.59%		

Q15: How many vehicles (cars, trucks, motorcycles) are available in the household where you live?

0:	58.09%	3:	0.74%
1:	19.85%	4 or more:	2.94%
2:	5.15%	(No response):	13.24%

Q16: Please indicate your age group:

Under 12 years old:	0.00%	56-64 years old:	11.03%
12-17 years old:	2.94%	65 years old or older:	6.62%
18-25 years old:	12.50%	(No response):	7.35%
26-55 years old:	59.56%		

Q17: Which of the following best describes your current employment status? (You may check more than o

Employed, full-time:	28.68%	Student, part-time:	2.21%
Employed, part-time:	16.91%	Homemaker:	4.41%
Retired:	8.09%	Unemployed:	17.65%
Student, full-time:	9.56%	Other:	9.56%

Q18 :What is your annual household income level?

$14,999 or less:	46.32%	$60,000-$74,999:	1.47%
$15,000-$29,999:	22.06%	$75,000 or higher:	0.00%
$30,000-$44,999:	7.35%	(No response):	22.06%
$$45,000-$59,999:	0.74%		

Over one-half of those surveyed were female (54.41%), while approximately one tenth of respondents (11.03%) failed to answer this question. The vast majority of surveyed riders (77.21%) were older than 25 years of age, with the most prevalent bracket being the 26 to 55 (59.56%) age group. Over two-fifths (41.91%) of responding riders classified themselves as being Caucasian, while nearly one-quarter (24.26%) of those surveyed classified themselves as African American. The current employment status of surveyed WinTran users was primarily full-time employment (28.68%), with 16.91% of riders stating a present status of part-time employment and another 17.65% currently being unemployed. While over one-fifth of those surveyed (22.06%) chose not to reveal their annual household income, nearly one-half (46.32%) of those surveyed stated an annual income of less than $15,000.

The majority of the individuals who responded to the question concerning drivers' licenses were found not to have a license (45.59%), whereas about one-tenth of the surveyed riders (9.56%) described themselves as having a license. Accordingly, most survey respondents (58.09%) answered "zero" when denoting the number of available vehicles at their household, with approximately one-fifth of those surveyed (19.85%) only having access to a single automobile.

Rider Satisfaction

The overall rating of satisfaction with WinTran services described by survey respondents was satisfactory or above. Concerning areas related to service, the bulk of riders (91.80%) rated the on-time performance of WinTran buses as being "satisfactory" or "very satisfactory." A similar pattern held for riders rating their satisfaction with days of service, hours of service, and frequency of service, with 80.33%, 71.42%, and 82.21%, respectively, rating these areas of service as being satisfactory or above. However, each of these areas had a notable measure of discontent, with nearly one-tenth of riders (9.24%) rating the hours of service as being "very unsatisfactory." Lastly, the rate of satisfaction of surveyed WinTran riders was overwhelmingly positive regarding the cost of bus fare, with 86.18% of riders being supportive of the specific criterion.

In regard to the safety and convenience of the WinTran bus service, the trend continued to indicate a satisfactory rating. When measuring the overall safety and security of the service, nearly one-half of reacting riders (49.17%) rated the condition as "very satisfactory," with less than 5% (4.17%) assessing the safety and security of the service as being unsatisfactory or below. Similarly, riders of the system noted the convenience of bus routes and bus stops as being laudable, with 87.50% and 84.04% of respondents rating the factors as satisfactory or above, respectively.

As for the service tangibles of bus sanitation and driver courtesy, the overall feedback from those surveyed was favorable. Almost one-half of riders (49.17%) rated the cleanliness of the buses as being "very satisfactory," with another two-fifths of those surveyed responding "satisfactory." The tendency for satisfaction of WinTran services continued when describing driver courtesy. Over three-fifths of riders (60.16%) believed the politeness of the bus drivers to be "very satisfactory;" the only area of the question to have a percentage above 50% for the highest rating of satisfaction.

The final three areas rated by the surveyed riders concerned the distribution of information pertaining to WinTran services. Once again, the majority of respondents (86.18%) rated the availability of information as being satisfactory or above. In respect to telephone customer service and the usefulness of the agency's website, 85.98% and 93.00%, respectively, of riders surveyed rated these areas as being satisfactory or above.

Service Improvements Proposed by Riders

Two open-ended questions within the survey sought to determine areas in which riders believed the agency may improve their service and expand their service area. The qualitative responses of these questions were collected and then grouped into similar themes. The top five themes, in order of magnitude, concerning desired improvements to the presently offered system were:

- Extended service hours,
- Sunday service,
- Increased frequency of service,
- Additional shelters and benches at bus stops, and
- Additional routes and bus stops.

The top theme, extended service hours, correlates with the prior satisfaction response that found 28.57% of riders believed the "hours of service" was unsatisfactory or below. In terms of the requests for Sunday service and increased frequency, 19.67% of riders rated the "days of service" as being unsatisfactory or below, while 17.80% of surveyed riders provided the same level of dissatisfaction for the "frequency of service."

The second semi-structured question asked riders to express what areas or destinations they would like to have WinTran additionally serve. The top five places, in order of popularity, were:

- Walmart,
- Martin's Food Market, outside of Winchester,
- The Department of Motor Vehicles (DMV), and

- The Town of Berryville.

While there is currently bus service to the Walmart near the Apple Blossom Mall, there is no service to the recently-constructed Walmart near the Winchester Medical Center; with the closest present service being the Amherst route. Likewise, there is currently bus service to the Martin's Food Market near the Apple Blossom Mall, but there is no present service to the Martin's located at the Winchester Gateway development; with the closest service being the Berryville route. As for the subsequent three choices for service expansion, there is currently minimal service offered by WinTran outside of Winchester and therefore no service to the DMV, located south of the city limits along Valley Pike, or the Town of Berryville, located roughly ten miles east of downtown Winchester.

Title VI Report

Winchester Transit submitted their most recent Title VI Program Report to the FTA on December 30, 2009. The report documents how Winchester Transit ensures that the level and quality of transit service is provided without regard to race, color, national origin, or income status. The report includes a description of the complaint process; a description of complaints filed; sample copies of how the public is notified of their rights under Title VI of the Civil Rights Act of 1964; and Census information concerning people who are limited English proficient (LEP), low income, disabled, African American, and Hispanic.

There have been no lawsuits filed against Winchester Transit alleging discrimination with regard to transit service or amenities. Winchester Transit did receive two complaints alleging discrimination in 2009 and they were investigated and action was taken. Winchester Transit's 2009 FTA Compliance Review found no deficiencies with regard to the City's compliance with Title VI.

FTA Triennial Review

WinTran's most recent FTA Triennial Review was conducted in 2009, with the desk review on February 11, 2009, and the site visit on June 30 and July 1, 2009. Deficiencies were found in four of the 23 areas, including: satisfactory continuing control; maintenance; ADA; and drug and alcohol program. Exhibit 3-1 provides the summary of findings and corrective actions that were included in the Triennial Report. In July of 2009, WinTran responded to the findings. The full report and the City's response are provided in Appendix B.

Exhibit 3-1

V. SUMMARY OF FINDINGS AND CORRECTIVE ACTIONS

Review Area	Finding	Deficiency	Corrective Action	Response Days/Date	Date Closed
1. Legal	ND				
2. Financial	ND				
3. Technical	ND				
4. Satisfactory Continuing Control	D-05	Inventory results not reconciled to equipment records	The City must reconcile its vehicle and equipment records. The City must provide FTA Region III Office with a reconciliation of its March, 2009 inventory.	30 Days August 31, 2009	
	D-08	Excessive fixed-route bus spare ratio.	The City must provide FTA with a Disposition plan to come into compliance with FTA spare ratio guidelines.	30 Days August 31, 2009	
5. Maintenance	D-04	Late preventative maintenance	The City needs to address the occurrences of late Preventative Maintenance Inspections (PMIs) to ensure that FTA's capital investment is not being jeopardized. The City must provide FTA Region III with a report on its results for the next three months beginning in August.	90 Days October 29, 2009	
6. Procurement	ND				
7. Disadvantaged Business Enterprise	ND				
8. Buy America	ND				
9. Suspension/ Debarment	ND				
10. Lobbying	ND				
11. Planning/POP	ND				
12. Title VI	ND				
13. Public Comment for Fare Increases and Service Reductions	ND				
14. Half Fare	ND				
15. ADA	D-07	ADA service provisions deficiencies	The City will implement all required service provisions and provide evidence of the implementation to FTA.	30 Days August 31, 2009	
16. Charter Bus	ND				
17. School Bus	ND				
18. National Transit Database	ND				
19. Safety and Security	ND				
20. Drug-Free Workplace	ND				

Review Area	Finding	Deficiency	Corrective Action	Response Days/Date	Date Closed
21. Drug and Alcohol Program	D-02	Drug and Alcohol policy lacking required elements	The City must revise its Drug and Alcohol policy to clearly define procedures for secondary testing upon receipt of Negative Dilute test results from the Medical Review Officer (MRO). The City must provide FTA Region III Office with a copy of the revised policy.	30 Days August 31, 2009	
22. Equal Employment Opportunity	ND				
23. ITS Architecture	ND				

Findings: ND = No Deficiencies; D = Deficient; AC = Advisory Comment; NA = Not Applicable; NR = Not Reviewed

TRANSIT NEEDS ANALYSIS

The focus of this transit needs assessment is to analyze quantitative land use and population data, along with qualitative data provided by area stakeholders and the public, to develop a solid understanding of the travel needs of the diverse group of current and potential riders. This needs assessment incorporates information gathered from recent planning efforts, the U.S. Census, and interviews with local stakeholders.

REVIEW OF RECENT PLANS

2010 City of Winchester Comprehensive Plan

The City of Winchester is currently completing a re-write to its comprehensive plan, which will direct the city's vision for development in the immediate future. The recent work to update this guiding plan was the first such effort since the 1991 Comprehensive Plan was drafted and later amended in 1999 and 2005. Although the plan covers an array of themes and potential initiatives, this review is centered on matters concerning resident mobility (Chapter 6) and the prospects for enriched public transit services via new land use developments in specific geographic planning areas (Chapter 11).

Mobility

The City Council adopted 12 citywide objectives intended to "create and maintain a safe, efficient, and environmentally sustainable mobility and transportation network that is interconnected, multi-modal, and that facilitates walkable urban land use patterns less dependent upon personal vehicle use." The following four objectives are specific to the promotion of public transit in conjunction with the overarching citywide objective.

- *Encourage the use of alternate modes of mobility including walking, bicycling, and public transportation by all sectors of the population to reduce the dependency upon private automobile use.*

Within the objective, the comprehensive plan suggests that WinTran should utilize survey and ridership results to dictate route expansion. An addition of fixed-route service should include the southeastern subdivisions and a partnership with Frederick County that enables service to Lord Fairfax Community College. The plan also proposes the transit agency to increase the frequency of its fixed-route services, construct bus shelters at popular stops, including the multimodal intersections near parking garages and the Green Circle Trail, and improve its advertising efforts in order

to attract intermittent riders. Finally, the transit agency should investigate the creation of designated park and ride lots, as well as commuter service opportunities to the Washington, DC area.

- *Investigate the needs for multimodal transfer facilities.*

The comprehensive plan suggests the construction of a structure that will facilitate a seamless transfer from one mode to another. WinTran is also recommended by the plan to construct shelters at bus stops, especially the transfer location, as the majority of the system's stops leave riders exposed to the natural elements. Furthermore, the transit agency should introduce inexpensive bicycle racks to promote the multimodal option and partner with the MPO to determine preferred multimodal transfer facilities.

- *Work closely with Frederick County and Stephens City to extend public transportation between the City and destinations such as Lord Fairfax Community College, DMV, the Employment Commission/Job Training office, and the regional detention facilities as well as urbanizing area of the County and Town.*

According to the plan, Winchester should remain involved with the Metropolitan Planning Organization (MPO) in responding to transit demand and ensuring that mobility policies take into account the needs of low income and minority populations in accordance with Title VI of the Civil Rights Act. WinTran should also examine current locations in which fixed-route service is presently lacking (e.g., DMV office and community college) and ensure these important destinations are made accessible to individuals who are reliant or choose to utilize the agency's bus service.

- *Support the resumption of rail passenger service to Winchester.*

The City of Winchester should seek opportunities to partner with Amtrak and the Maryland Area Rail Commuter (MARC) to examine the feasibility of a rail extension from the rail spur leading to Martinsburg. This alternative form of transport was once available to residents and its reintroduction would provide another travel mode to residents concerned with a future rise in energy prices.

Public Transit in Geographic Planning Areas

In addition to providing an outline for its vision of improved mobility throughout the City of Winchester, the comprehensive plan also describes an aspiration to move the jurisdiction toward a sustainable vision informed by components of traditional neighborhood design. The format of this portion of the comprehensive plan draws from the aforementioned mobility objectives and employs them via action items targeted toward the ten designated planning areas. However, the description of public

transit action items was limited in this chapter of the comprehensive plan. The subsequent bullets represent a synopsis of two transit-specific actions and their associated geographic planning areas.

- *Northeast: East of the CSX tracks and north of Cork Street*

The comprehensive plans calls for an employment of New Urbanism design elements that would introduce bus shelters, benches, and improved crosswalks along the Route 7 corridor.

- *Southwest: West of Valley Avenue, and south of WW tracks*

The plan outlines an objective to incentivize the construction of compact mixed use development to replace strip commercial and industrial properties, which should be complemented by transit services along Valley Avenue.

Winchester-Frederick County Transit Services Plan

In 2009 the Winchester-Frederick County MPO developed a Transit Services Plan for the region, which includes the City of Winchester, the urbanized areas of Frederick County, and Stephens City. The Plan included a number of recommendations including the following WinTran fixed-route service extensions:

- Extending the Berryville Avenue route to the east, using Valley Mill Road, Greenwood, and Route 7.

- Extending the Valley Avenue route to Cross Creek Village (WinTran has implemented this recommendation).

- Extending the Amherst Route to the new Walmart on Route 50 West.

- Extending the Apple Blossom Mall route to the Millwood/US522 South corridor.

- Extending the Northside route to Rutherford Crossing.

The Plan also recommended changing the pairing arrangements of the routes to better serve Shenandoah University and re-configuring the Trolley Route to improve productivity. Expanded days, hours, and frequency of service were also recommended, along with improved passenger amenities.

In addition to providing recommendations concerning WinTran services, the Plan also recommended the development of Countywide demand-response public

transportation, local corridor services on Route 11, regional corridor services, and additional commuter infrastructure and services.

Northern Shenandoah Valley Coordinated Human service Mobility Plan

In response to the coordinated planning requirements of the SAFETEA-LU legislation, the VDRPT sponsored the development of a Coordinated Human Service Mobility Plan. The coordinated plan was designed to guide funding decisions for three specific grant programs: Section 5316 (Job Access and Reverse Commute – JARC), Section 5317 (New Freedom), and Section 5310 (Elderly Individuals and Individuals with Disabilities.)

An important part of the coordinated planning process was to conduct an assessment of the transportation needs for individuals with disabilities, older adults, and people with low incomes. The following unmet transit needs were identified in the Coordinated Plan:[1]

- Transportation services beyond a specific agency's program criteria.
- Transportation for non-medical related social and recreational trips.
- Expanded transportation services during evening and weekend hours for a number of trip purposes.
- Greater door-to-door services for people who need additional assistance.
- Same-day transportation service for spontaneous travel needs.
- Transportation services from the more remote areas of the region to employment and shopping destinations, including options for people with disabilities.

Northern Shenandoah Valley Public Mobility Project

The Northern Shenandoah Valley Public Mobility Project was an effort to create a coordinated human service transportation system for the Northern Shenandoah Valley region of Virginia using advanced intelligent transportation systems technology.[2] The

[1] Northern Shenandoah Valley Coordinated Human Service Mobility Plan, June 2008, prepared by Cambridge Systematics and KFH Group for the Virginia Department of Rail and Public Transportation.
[2] Northern Shenandoah Public Mobility Project Evaluation, Center for Transportation Studies, University of Virginia, sponsored by the Office of University Programs, Research and Special Programs Administration, USDOT, 2003.

premise of the project was that there are several human service agencies in the region that currently provide client transportation, many of which have empty seats on some of their runs and vehicles that sit idle for parts of the day, and that by using advanced technologies these services could be coordinated and provided more efficiently. Specific technologies included network computer aided dispatching and geographic information systems (GIS). The report documenting the process concluded that the use of GIS is an effective tool to use in identifying the need for and requirements for ITS solutions for public transportation challenges in rural regions. This program, while innovative and practical, was never fully implemented by agencies in the region. It is likely that the operational elements involved in coordinating rural human service agency programs posed barriers to implementing the program.

Demographic Analysis

The demographic analysis of transit needs focuses on quantitative data for potentially transit dependent populations, such as older adults, individuals with disabilities, and persons living below the poverty level. U.S. Census data on such populations were collected, processed, and mapped using GIS technology to determine areas with relatively high potential transit needs. Major origins and destinations that potential transit riders may need to access were also researched and mapped to augment our understanding of areas with higher transit needs. Existing transportation services were overlaid on these needs maps to determine the extent to which the current transportation network serves potential transit riders and the places they travel to and from. Combined with input from stakeholders and the public, the analysis of gaps in existing services and the identification of relatively high need areas, including key origins and destinations, will guide the design of new transit services and changes to existing services.

Transit Dependent Populations

The first part of the demographic analysis examined those population segments that are most likely to require alternative mobility options to the personal automobile due to age, disability, income status, or simply because they reside in a household in which there are no available automobiles. The data utilized in this analysis were gathered from Census 2000 data tables, (Summary Files 1 and 3), adjusted based on 2007 ESRI data, and included several segments of the population:

- Youth — Persons between the ages of 12 and 17. These individuals are essentially old enough to make trips without an accompanying adult, but often are not old enough to drive themselves or do not have a car available.

- Elderly – Persons age 60 and above. This group may include those who either choose not to drive any longer, have previously relied on a spouse for mobility, or because of factors associated with age can no longer drive.

- Persons with Disabilities – Persons age 16 and above who have a disability lasting six months or more that makes leaving the home alone for simple trips such as shopping and medical visits difficult for them.

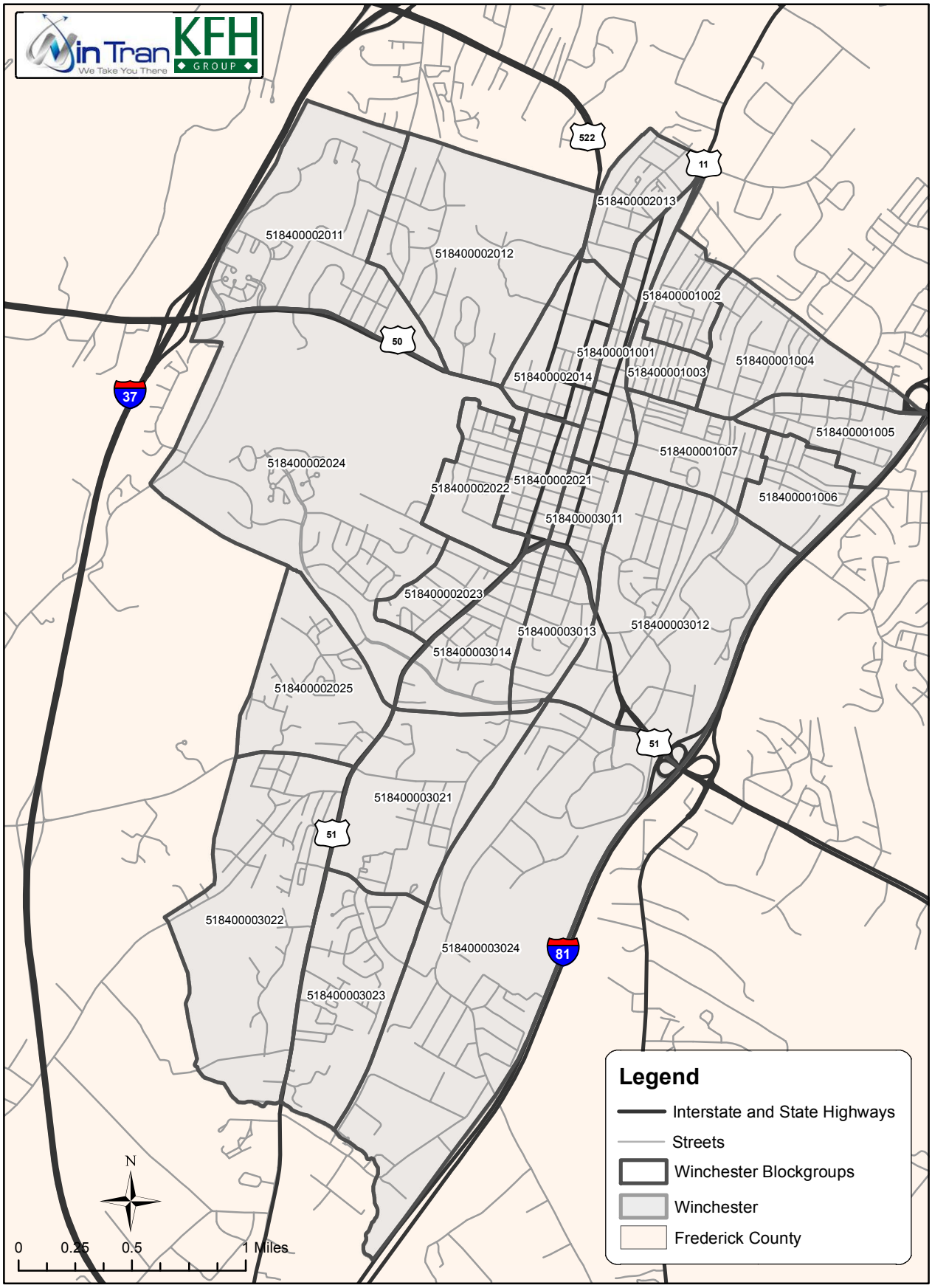
- Poverty Status – This segment includes those individuals living below the poverty level who may not have the economic means to either purchase or maintain a personal vehicle.

- Autoless Households – Number of households without an automobile. One, if not the most, significant factor in determining transit needs is the lack of an available automobile for members of a household to use.

In order to identify the geographic areas that have high relative transit needs, the Census 2000 data on these five populations were gathered and summarized at the block group level. All Census block groups within the City were ranked by each population category. For example, all block groups were ranked from high to low based on the number of youth in each block group. The block group with the highest number of youth was ranked 1; the block group with the second highest number was ranked 2; and so on. This process was repeated for all five potentially transit dependent populations listed above. The rankings by each population category were then summed by block group to produce an overall ranking of potential transit need for each block group.

Shown in Figure 3-15 the block groups were divided into approximate thirds and classified—relative to each other—as having high, medium, or low potential transit needs. Representing each block group's combined rankings for the five potentially transit dependent populations, the overall ranking was mapped to produce geographical representations of transit needs in the City of Winchester. This ranking was generated twice, first based on the density of transit dependent persons and secondly based on the percentage. In addition, the block groups were ranked and mapped separately based on population density, which helps determine the type of transportation service that is feasible for the area, and the number of autoless households, which as mentioned previously is a key factor in determining potential transit need. Each map was overlaid with existing fixed-route public transportation services (WinTran) to determine whether identified areas of transit need were served by existing services and the potential gaps in the current transportation system. The analyses of these maps are summarized below.

Figure 3-15: Winchester Block Groups



Ranked Density of Potentially Transit Dependent Populations

In the overall ranking based on the density of transit dependent persons, the block groups were mapped to show areas within the City that have concentrations of transit dependent persons. Areas with higher densities are better candidates for fixed-route transit services. The results of this ranking for the City is presented in Figure 3-16 Areas with relatively high needs based on the density of potentially transit dependent persons are located in the center of Winchester, bordered to the south by W. Jubal Early Drive, the west by Valley Avenue, to the east by South Loudoun, and extending north-northeast through the City generally along the Route 11/Cameron Street corridor. Another high need area extends to the east, generally south of the Berryville Road and north of E.Cork Street/Senseny Road. These areas are served by WinTran currently.

Ranked Percentage of Potentially Transit Dependent Populations

In the overall ranking based on the percentage of transit dependent persons, the block groups were mapped to show areas within the City that have high proportions of transit dependent persons. Shown in Figure 3-17, the map displaying ranked percentage complements the ranked density map by highlighting areas that have a high number of potentially transit dependent persons, but lack density. This map shows a similar pattern of high need areas as the density map, but also pulls in an area of the northwest corner of the City, north of Amherst and east of the Winchester Medical Center.

Population Density

General population density in the City was also mapped to help determine the appropriate level of transit service, such as fixed-route, deviated fixed-route, scheduled, or demand-response, which may not be as obvious based on transit dependency alone. The most accepted guideline is a population density of at least 2,000 persons per square mile to support regular fixed-route transit service. However, if an area has a large transit dependent population, a lower density can sometimes support this type of service as well.

Figure 3-18 portrays the population densities of the City of Winchester. This map indicates that the core of the City does have sufficient population density to support fixed-route transit (over 2,000 people per square mile) and these areas are served by WinTran. The east side of the City exhibits lower population densities, as does the southwest corner of the City.

Figure 3-16: Total Density Ranking of Transit Dependent Persons of the City of Winchester

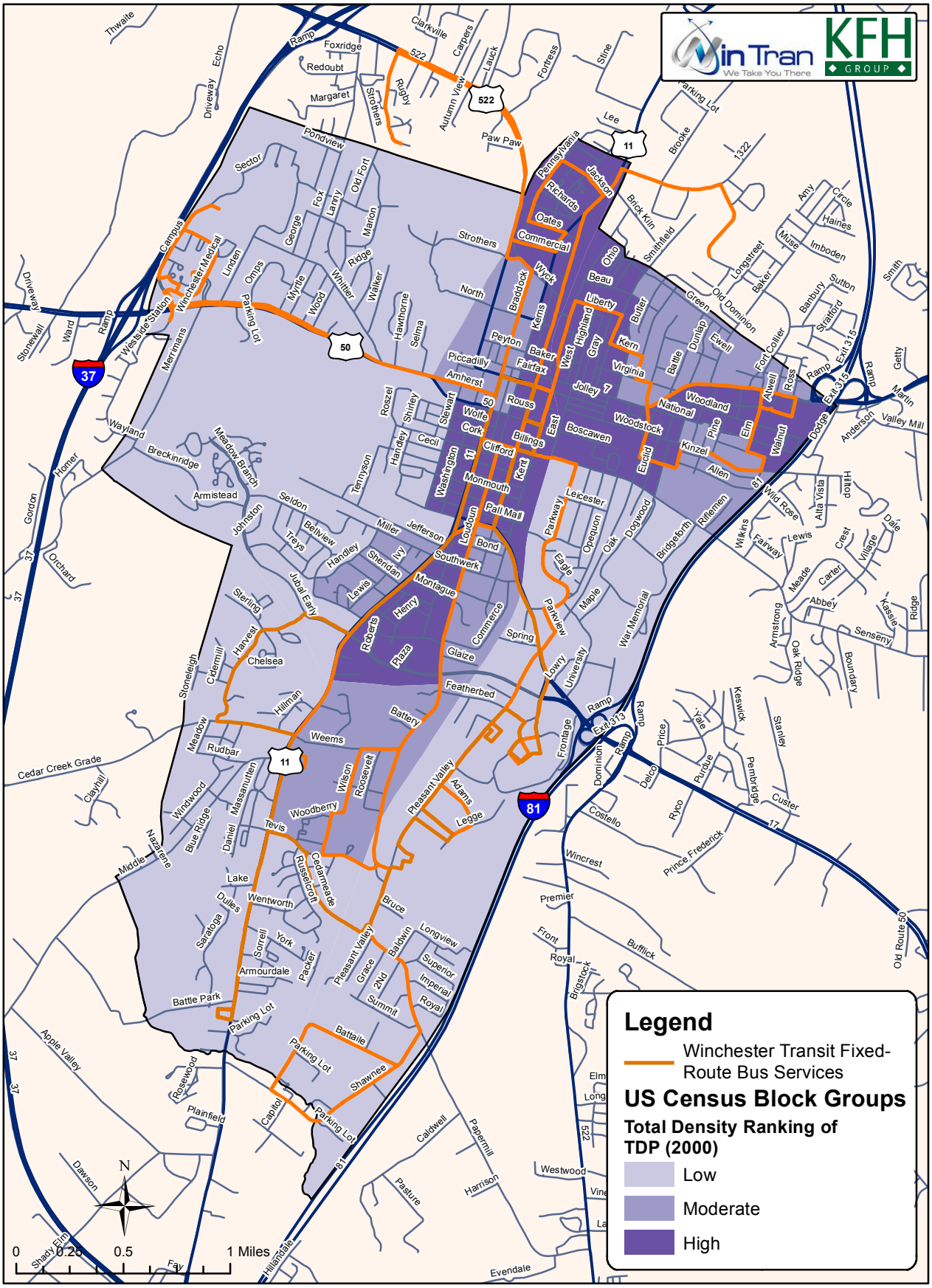


Figure 3-17: Total Percent Ranking of Transit Dependent Persons of the City of Winchester

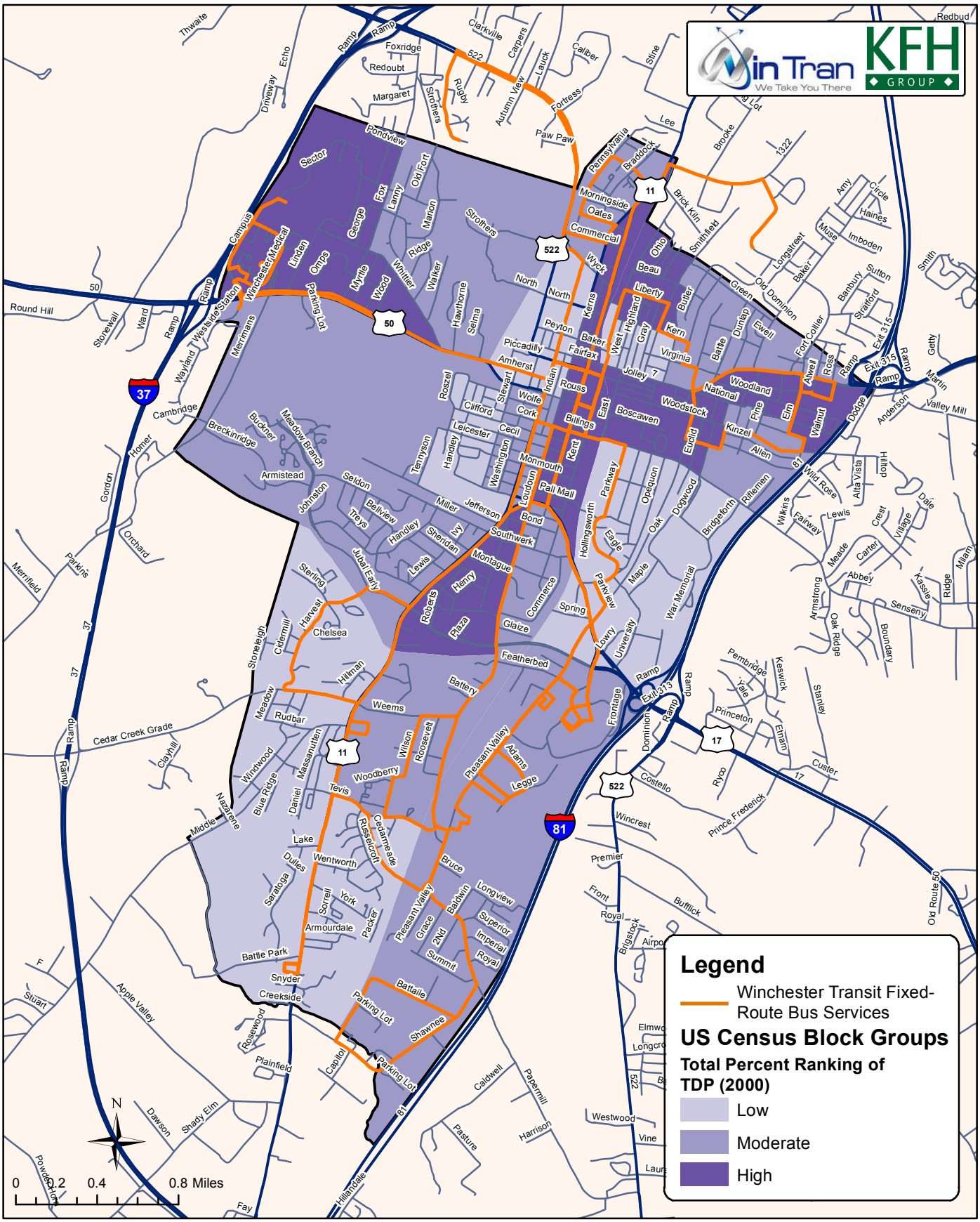
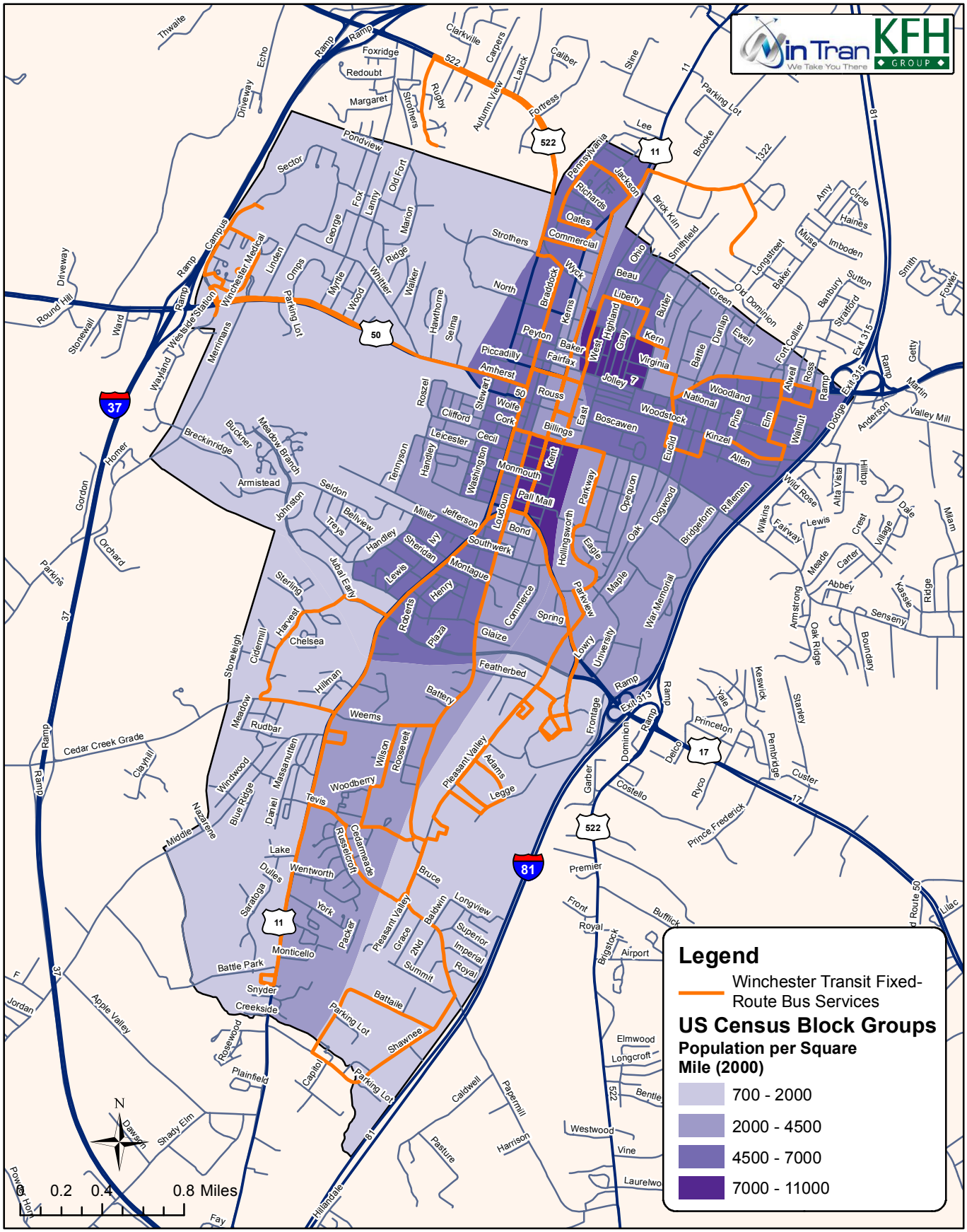


Figure 3-18: Population Density of the City of Winchester



Major Trip Generators

Major trip generators are those origins from which a concentrated transit demand is typically generated and those destinations to which both transit-dependent persons and choice riders are attracted. They include high density housing locations such as apartments and assisted living facilities, major employers, medical facilities, educational facilities, shopping malls and plazas, grocery stores, and human service agencies. Some of these trip generators, such as the Winchester Medical Center, fall under more than one category (i.e., major employer and medical destination), and these have been noted where appropriate. The data on major trip generators were collected from City and State websites such as the City of Winchester, the Virginia Department of Social Service, and Virginia Employment Commission. Data on destinations was largely found through an online search of Superpages.com and Google Maps.

Figure 3-19 shows the locations of the major trip generators throughout the City. The purpose of this map is to highlight areas of the City that have concentrations of major trip generators, and therefore are good candidates for expanded or new transit services. Major origins and destinations are generally spread throughout the southern portion of the City, with the densest concentration of trip generators located in the City's downtown. The majority of trip generators appear to be located along existing transit routes. Maps that portray the individual types of trip generators are included under the subheadings below. A review of the geographic distribution of each type of trip generator in the City is also provided. Appendix C provides the names and addresses for each of these generators, organized by type.

High Density Housing

Shown in Figure 3-20, potential trip-generating housing facilities include major apartment complexes, housing for seniors and/or persons with disabilities, nursing homes and assisted living facilities. Due to their high number of senior and disabled residents, housing for seniors and/or persons with disabilities, nursing homes, and assisted living facilities typically contain a more transit-dependent population.

The largest concentration of housing is in the southern portion of Winchester along Route 11, Tevis Street and Harvest Drive. High density housing throughout the city is well served by existing fixed-route transportation services with the exception of Holcomb House, a housing facility for seniors and persons with disabilities located on Lee Street, and Royal Haven, an assisted living facility located on Henry Ave.

Figure 3-19: Major Trip Generators Overlaid on Existing Transit

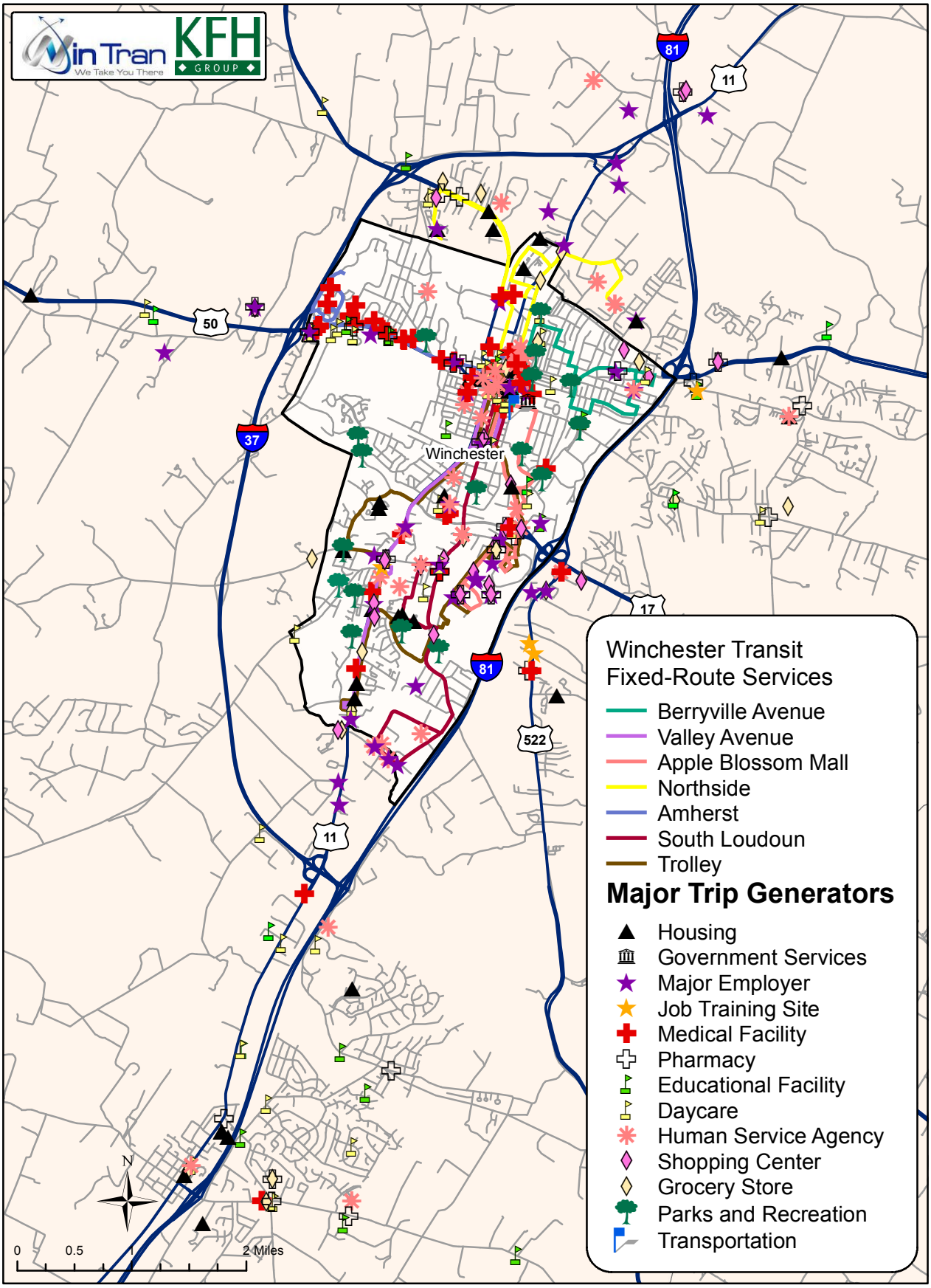
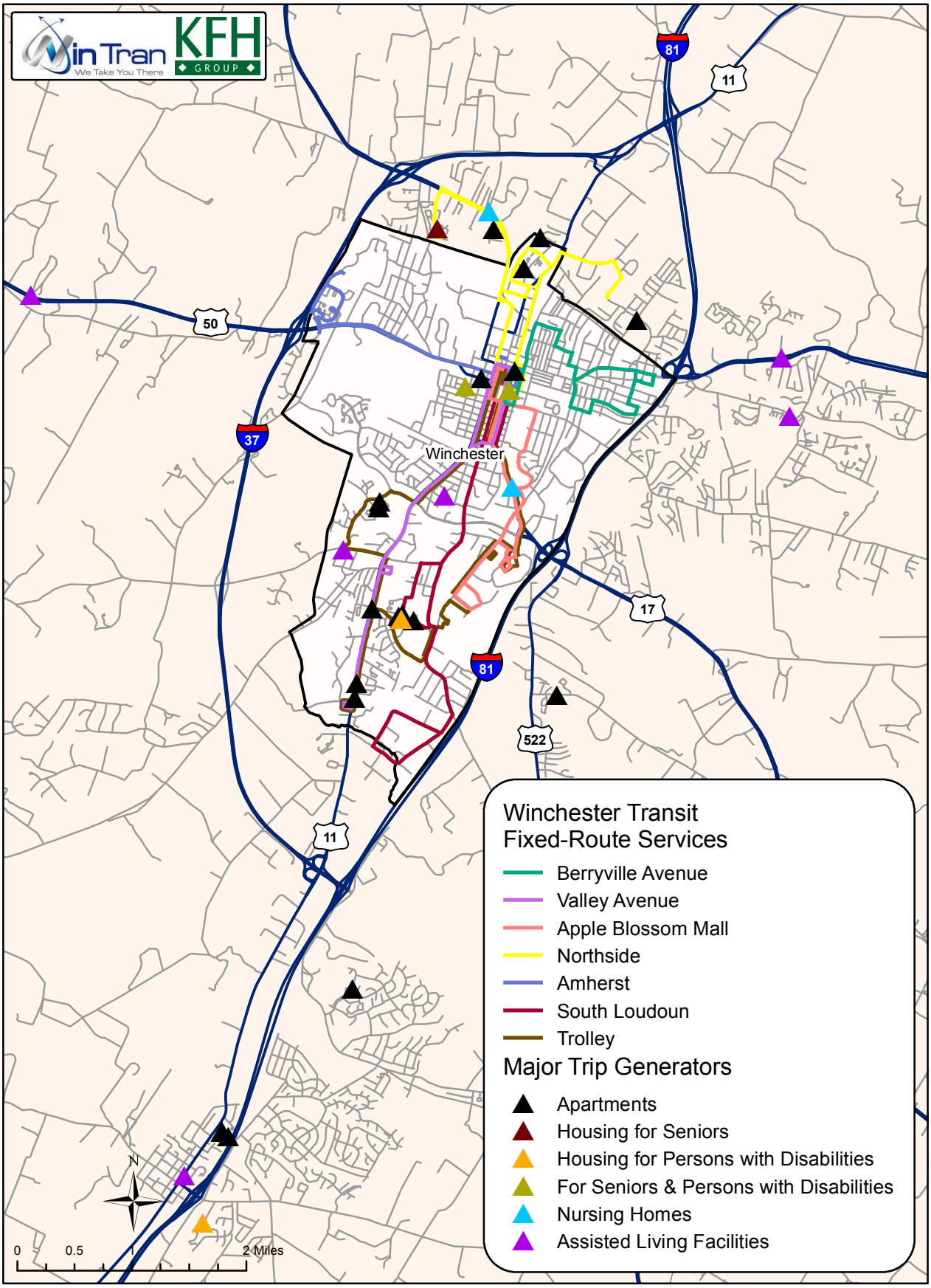


Figure 3-20: Major Trip Generators - Housing



Medical Facilities

Medical facilities including hospitals, medical centers, and pharmacies were identified and mapped in Figure 3-21. The highest concentration of medical facilities in Winchester is located along Route 50. These facilities are well-served by the existing Amherst Route. Additional medical facilities are located in the City's downtown and are scattered throughout the southern part of the City. The majority of medical facilities are well served by existing fixed-route transportation services with the exception of the Foot and Ankle Center located on South Pleasant Valley Road and three medical facilities located on West Plaza Drive.

Major Employers

Companies identified as major employers, with at least 100 employees, by the Virginia Employment Commission (VEC) and job training facilities were mapped in Figure 3-22. Some of these employers had more than one branch location within the City, in which case every branch location was mapped. It should be noted that some of the City's major employers are located outside the City, and some companies have at least 100 employees but average less than 100 employees per branch location; neither of these types of employers were included in this analysis. While Apple Blossom Mall was not included in the VEC's list of major employers, the mall hosts over 90 stores and thus qualifies as a consolidated employment center.

Winchester's major employers are scattered throughout the City with higher concentrations located on the southeastern portion of the city, particularly off of Pleasant Valley Road between Featherbed Lane and Papermill Road. Another concentration of major employers is located in the City's downtown. The City's job training facility is served by the existing Valley Avenue route.

Educational and Daycare Facilities

Mapped in Figure 3-23, educational facilities include colleges and universities, public and private middle and high schools, and public libraries. These educational facilities are located in the northern part of the City. All of the educational facilities in the City are well served by existing fixed-route transportation services.

Daycare Facilities were included in this category, as transit dependent populations might need to drop off and pick up a child at a daycare before and after work. While the majority of daycares are served by existing fixed-route transit systems, there are three daycare facilities which lack access to such service: Winchester Day Nursery on Lincoln Street, Apple Valley Montessori School, Inc. on Henry Avenue, and Victory Church/Rainbow Express Preschool on Middle Road.

Figure 3-21: Major Trip Generators - Medical Facilities and Pharmacies

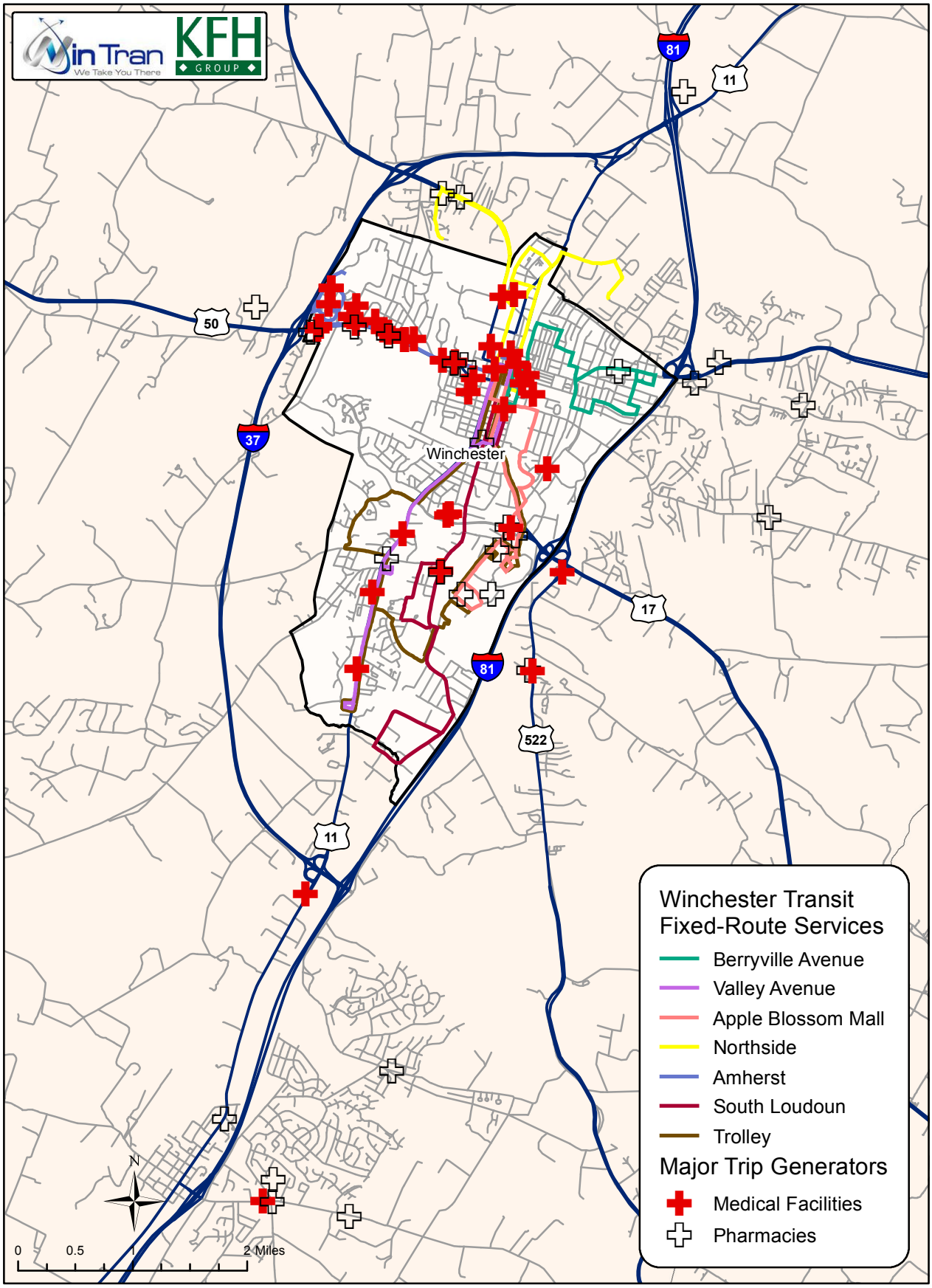


Figure 3-22: Major Trip Generators - Major Employers and Job Training Facilities

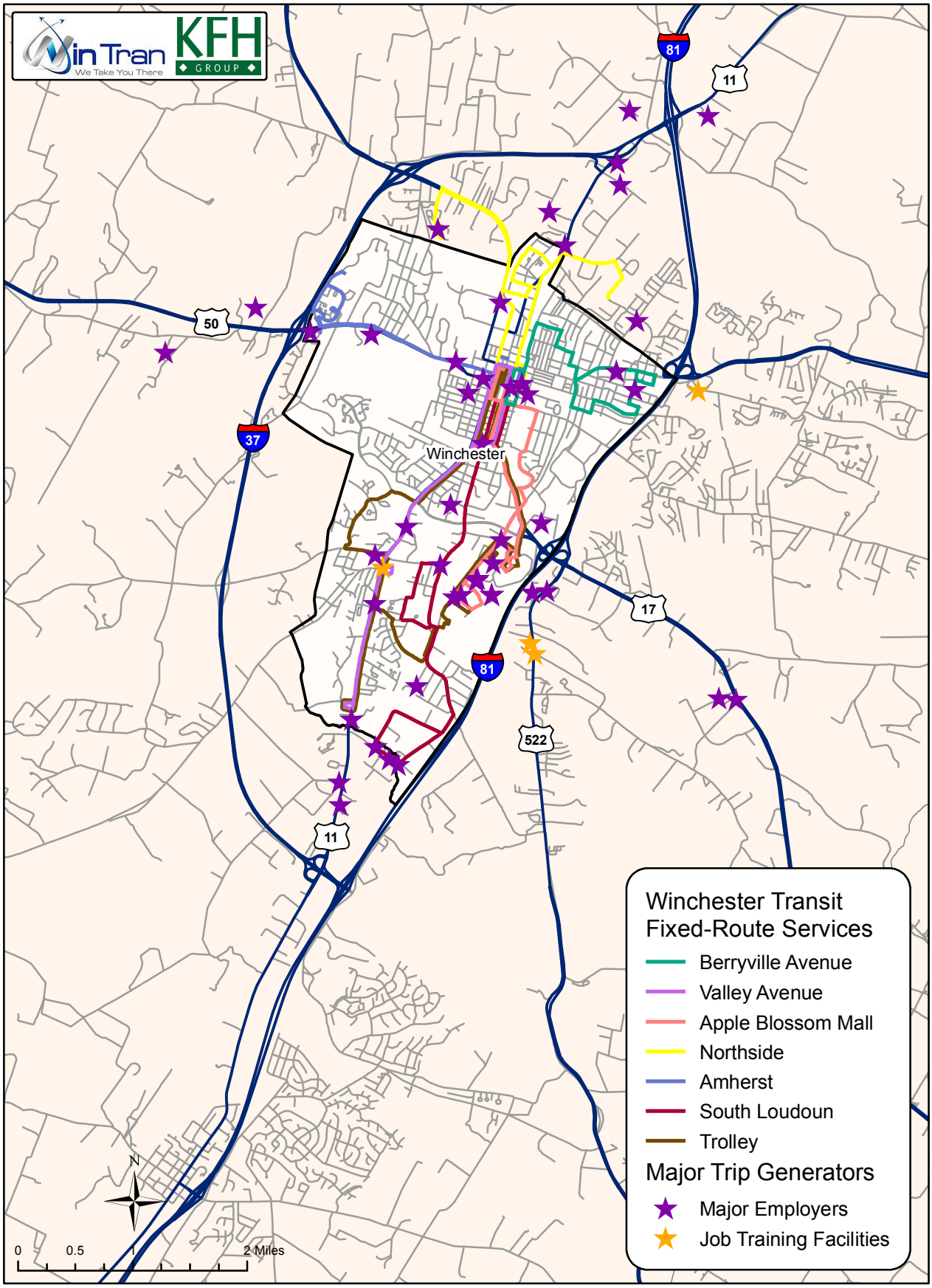
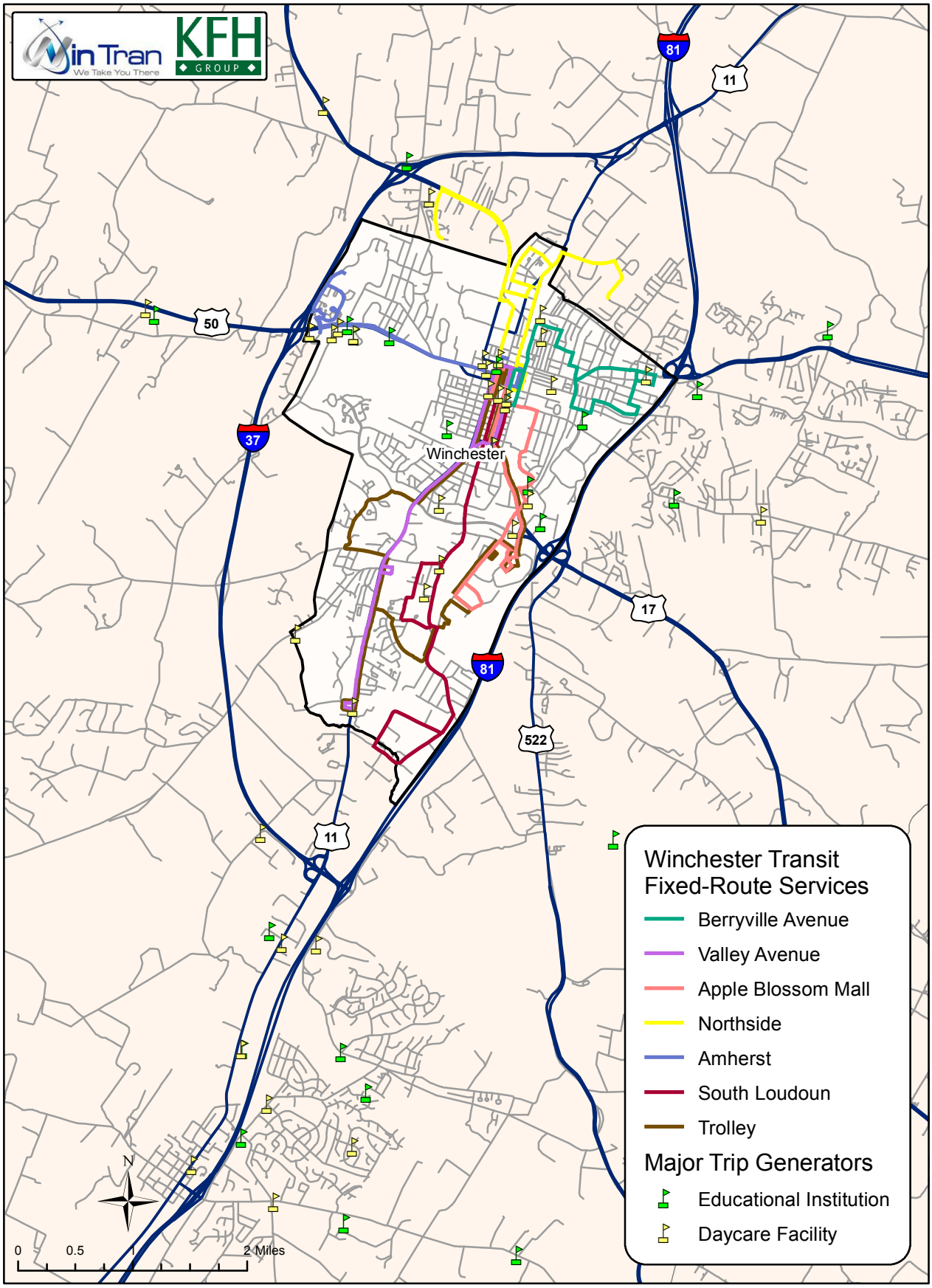


Figure 3-23: Major Trip Generators - Educational Institutions and Daycare Facilities



Human Service Agencies

Human service agencies can also generate a great deal of transit trips, depending on the nature of their services and clientele. Many agencies cater to clients who cannot afford a vehicle or are unable to drive; therefore they would be best served by regular fixed-route public transit. As shown in Figure 3-24, most agencies within the City fall adjacent to existing fixed-route service. Only Winchester Green Circle on Marion Street and Grafton School, Inc. on Bellview Avenue are not served by fixed-route public transit**.** WinTran currently does make route deviations to serve NW Works on two of the routes, twice a day.

Shopping Destinations

Locations of shopping centers and grocery stores in the City were mapped in Figure 3-25 to compare with existing transit services. Retail locations and grocery stories are spread throughout the eastern and southern parts of the City**.** All of the shopping centers and grocery stores within the City are well served by existing fixed-route service, though as noted from the survey responses, residents would like access to shopping destinations nearby in the County.

Parks

It is important for City residents to have access to recreational areas. Transit to parks is particularly important for youth who might not yet be able to drive but who want access to recreational areas and exercise facilities. Parks and recreational facilities are scattered throughout the City and while most are served by existing fixed-route transit, there are a few parks, mostly on the western side of the City, which are not directly served. Additionally, Jim Barnett Park on East Cork Street in northeast Winchester is not directly served, though it is within walking distance of the Berryville Avenue route. Figure 3-26 provides a map displaying the locations of parks in the City.

Government Services

Transit access to and from government services is important as residents might need to tend to business at one of these centers. All of the government service centers, including the Timbrook Public Safety Center, the Office of Housing and Neighborhood Development, Rouss City Hall, the Winchester-Frederick County Chamber of Commerce, and the Winchester-Frederick County Economic Development Commission, are located downtown and thus served by numerous routes.

Figure 3-24: Major Trip Generators - Human Service Agencies

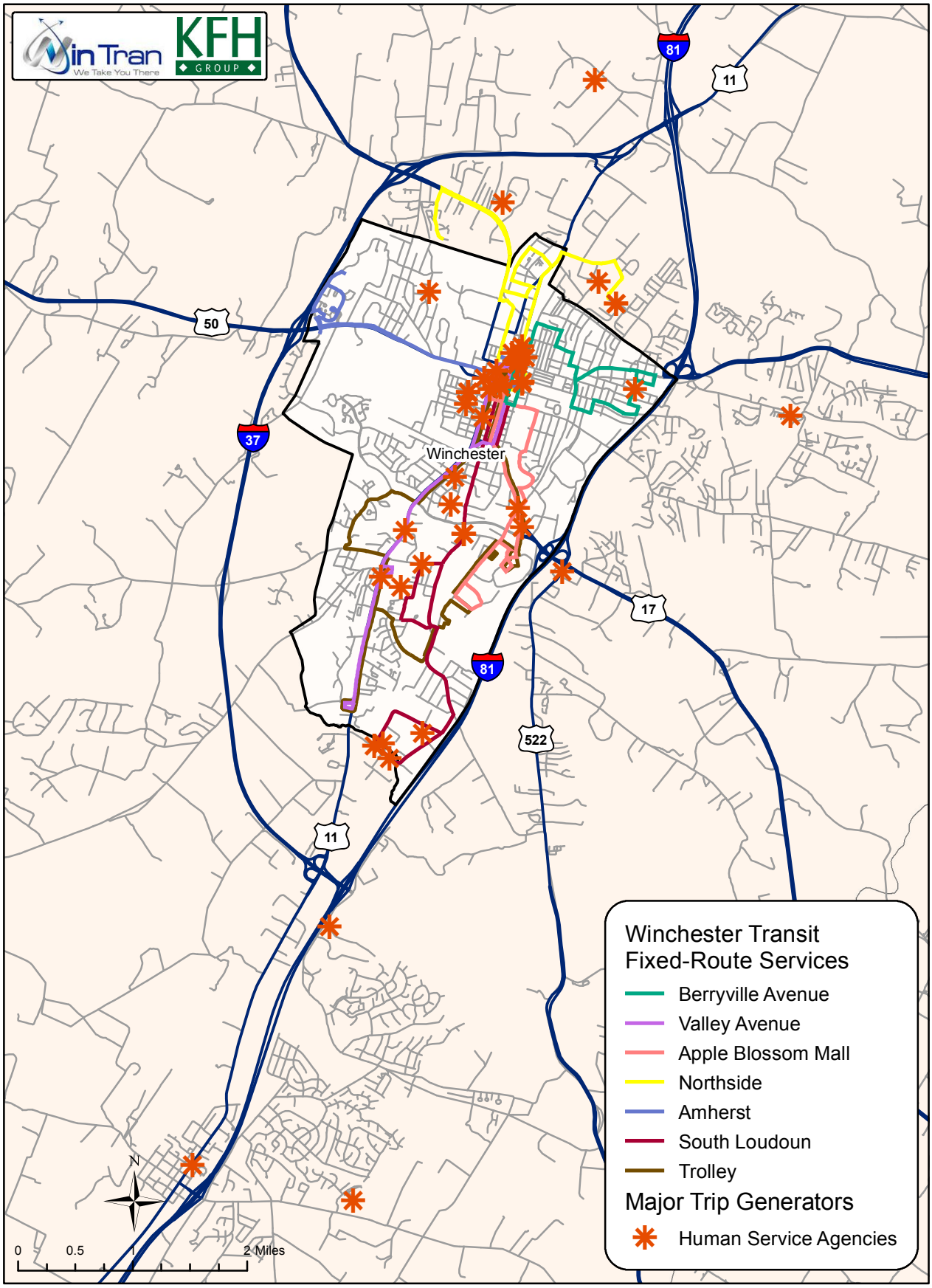


Figure 3-25: Major Trip Generators - Shopping Centers and Grocery Stores

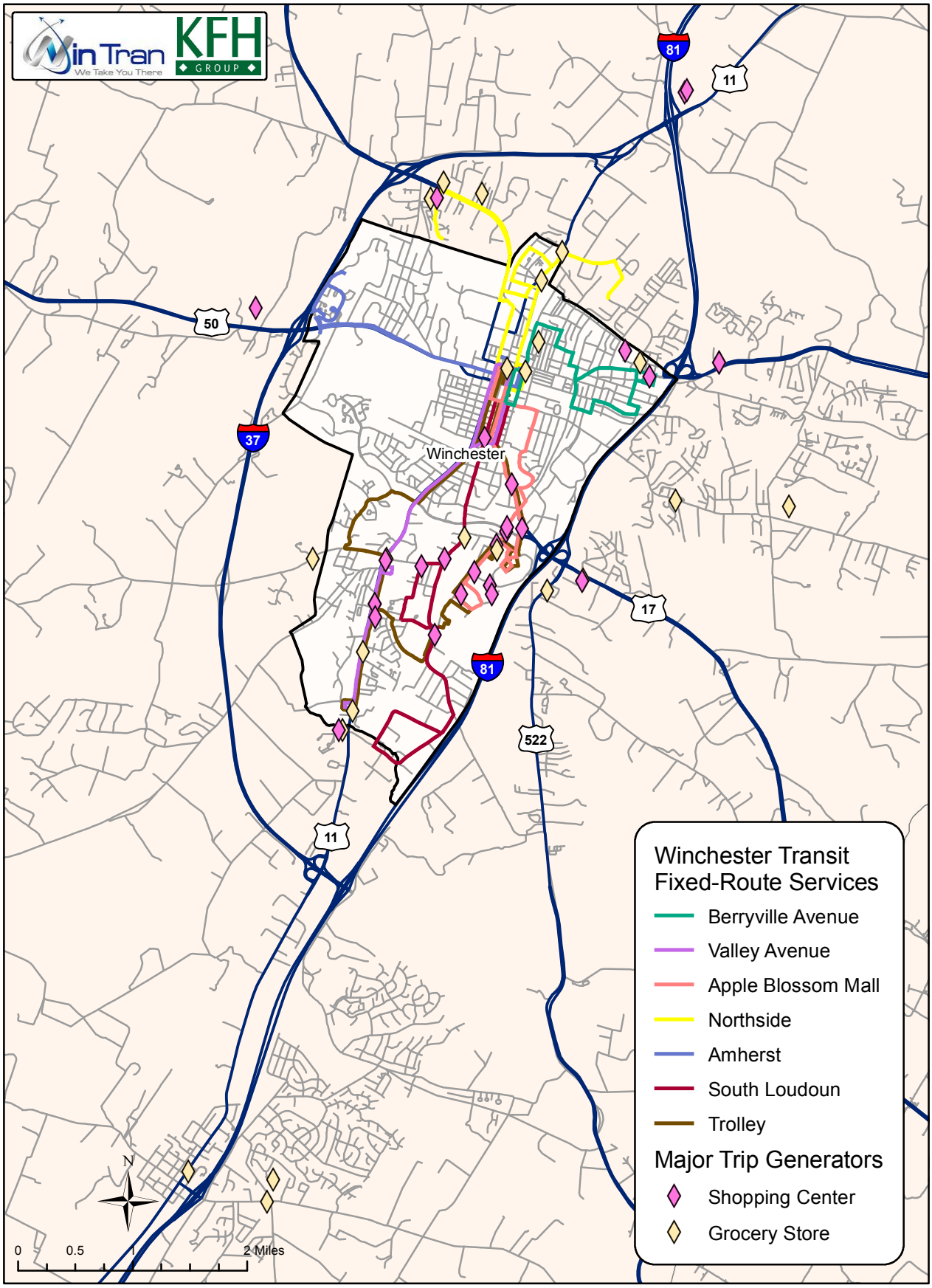
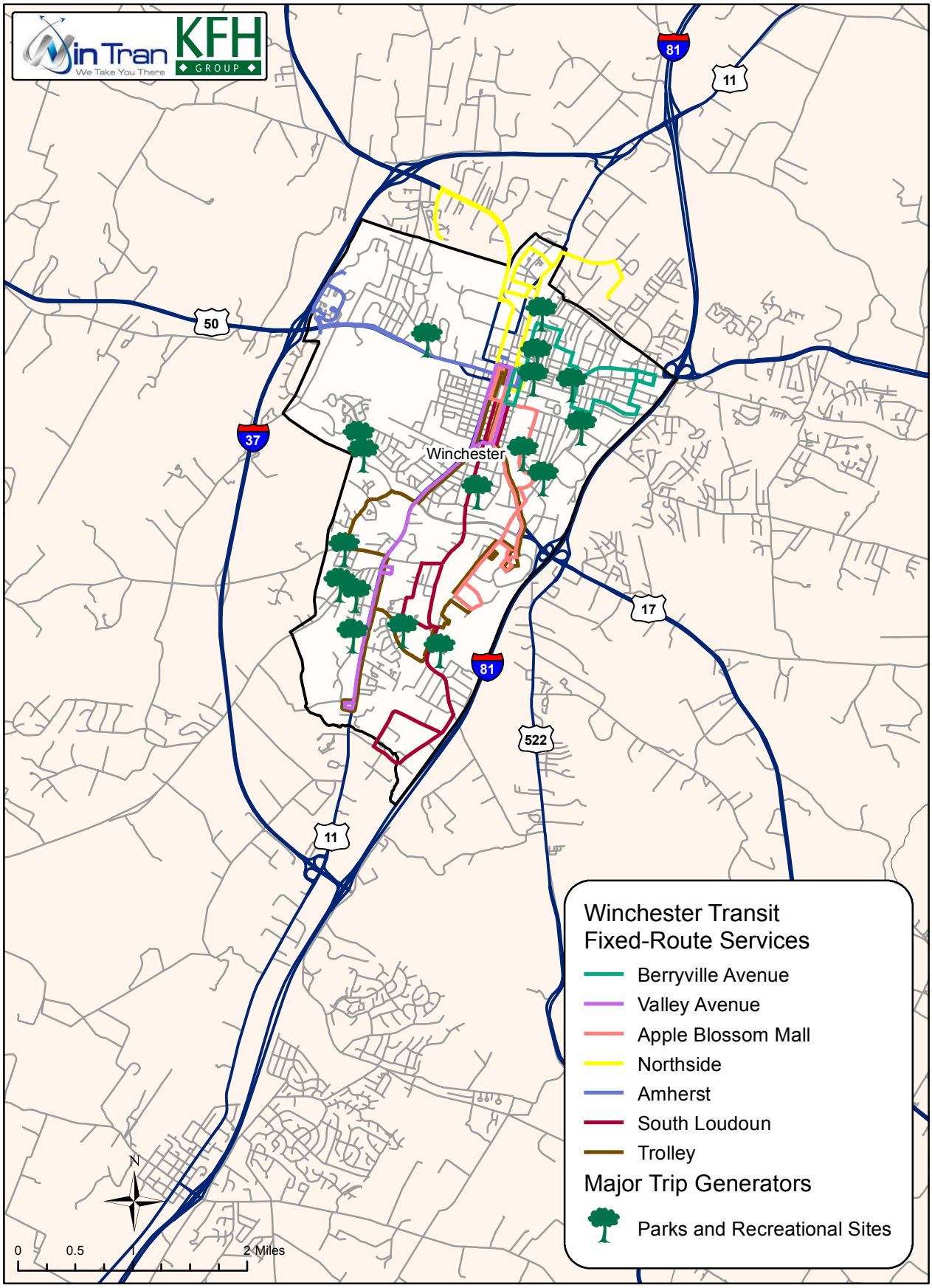


Figure 3-26: Major Trip Generators - Parks and Recreation



Stakeholder Opinions Concerning Transit Needs

During the completion of the Winchester-Frederick County Transit Services Plan (2009), a series of interviews were conducted and a variety of meetings attended as part of efforts to gain information from key stakeholders on public transportation needs in the region. To update this information for the City of Winchester Transit TDP, additional interviews were conducted to confirm needs from the previous planning process and to gain perspective on any new transit needs. The following section presents the outcomes of this component of the needs assessment and these outreach efforts.

Human Service Community

A variety of organizations and agencies provide services in the Winchester area to support people with disabilities, older adults, people with lower incomes, and other populations. Since these population groups often face mobility options, gaining insights from these organizations regarding unmet transportation needs and possible public transit improvements was a key component of the needs assessment.

Through previous planning efforts that included individual interviews with some agencies and input obtained through attendance at a meeting of the Winchester/Frederick County Community Services Council, a variety of major transportation needs were identified. For the City of Winchester Transit TDP, these transportation needs were updated through discussions with individual agencies and again through attendance of a meeting of the Winchester/Frederick County Community Services Council. Overall, the outreach process included the following organizations:

- AARP
- AbbaCare
- Adult Care Center
- American Red Cross
- Aids Response Effort
- Access Independence
- AC Head Start
- C-CAP
- City of Winchester Department of Social Services
- Concern Hotline
- Extension
- Faith In Action
- Frederick County Department of Social Services
- Habitat for Humanity

- Homestead Senior Care
- The Laurel Center
- National Counseling Group, Inc.
- Northwestern Community Services
- NW Works
- Our Health
- Shenandoah Area Agency on Aging

These organizations provided the following valuable insight and input concerning transportation needs in the Winchester area:

Major Transportation Needs

- There are important destinations that are located in the urbanized area and very close to Winchester, but outside of the City of Winchester**.** As such, they are not served by Winchester Transit or are only served a few times a day. Some examples include: the Virginia Employment Commission (Winchester Workforce Center), the Community Services Board, the Salvation Army, the American Red Cross, the DMV, major industrial areas, and several major new shopping centers.

- There is a need to serve other destinations that are not directly adjacent to Winchester, such as Lord Fairfax Community College (LFCC). The college offers a number of training and vocational programs, but students without cars cannot participate. Many stakeholders expressed the growing need for residents to have greater transportation options to access LFCC.

- There is a need for evening bus services that would open up employment opportunities and allow for participation in evening meetings and social activities.

- There is no bus service on Sundays, and Saturday services are limited.

- More frequent bus services are needed. It is difficult to conduct daily life activities using a bus system that operates on hourly headways.

- There is a need to provide additional work related trips, particularly for those people making the transition from Temporary Assistance for Needy Families (TANF) to full employment. Specific destinations mentioned include: Sysco, DuPont, and Family Dollar warehouses and distribution centers, along with services to business parks.

- Improved marketing of transit services such as route and schedule information at bus stops, easier to read bus schedules, and an easier number to remember for calling Winchester Transit is needed. Currently the Internet is the primary source for current route and schedule information.

- Additional passenger amenities such as benches and shelters are needed.

- Less distance between bus stops would be helpful for riders, as well as stops directly in neighborhoods and not just long major thoroughfares.

- Service to accommodate multiple stops (i.e., daycare and work).

- More flexible transportation options, beyond public transit, such as a taxi voucher program, could be used to address some public transit needs in areas where there is not enough density to support bus or van services and/or for evening hours where there may not be enough demand to support public transit services.

- While additional transit services are needed, there is a need to keep costs down to ensure people with lower or fixed incomes can afford to ride.

Latino Community

In addition to obtaining input from a variety of agencies and organizations working with a various population groups in Winchester, a phone interview was conducted with a Salvation Army Corps Officer to gain specific input on transportation needs impacting the Latino community. While many of the major transportation needs are similar to those articulated by the human service community, specific issues noted include:

- There is a need for more frequent bus services, particularly for trips that involve multiple stops such as dropping off a child at daycare on the way to work. Currently, this trip would result in waiting an hour for the next bus.

- Transportation is needed to access locations just outside Winchester and not currently served by Winchester Transit.

- Additional services are needed to the Salvation Army location. Currently, Winchester Transit's Northside Route provides service to their location four times a day on weekdays (6:40 a.m., 8:40 a.m., 1:40 p.m., and 4:40 p.m.) and three times a day on Saturdays (9:40 a.m., 1:40 p.m., and 3:40 p.m.). This results in people waiting for several hours for the next bus after using

Winchester Transit to access the Salvation Army for services or to pick up food.

- In lieu of available transit services, some people use taxis to access jobs and other locations. However, these trips are expensive and eat up much of their disposable income, and for others the taxi fare is simply cost prohibitive and therefore they may be unemployed or underemployed. Affordable transportation services are critical for the people they work with, and who are required to make a commitment to seeking gainful employment, but who have limited incomes or may be homeless.

- Key destinations include Walmart (primarily for picking up prescriptions), low or no cost medical clinics, and warehouse/distribution warehouses for employment opportunities.

City of Winchester Planning and Zoning

The KFH Group conducted a phone interview with the Planning Director for the City of Winchester to discuss transportation needs, gain input on new development that may impact transit services, and obtain information on other plans for the Winchester area that should be considered as part of the TDP process.

The Planning Director provided input on a variety of transportation needs and issues that impact transit services in Winchester. Much of the discussion focused on the City of Winchester's current Comprehensive Plan that is in the process of being updated. Virginia requires that every locality prepare and adopt a Comprehensive Plan for the physical development within its jurisdiction, and as noted on the City of Winchester's website the one for the area involves "the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the City which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants, including the elderly and persons with disabilities".

The plan contains several key aspects relative to the TDP process. As noted by the Planning Director, this begins with a fundamental change of the "Transportation" section of the plan to "Mobility" in an effort to reinforce a focus on options beyond roads, highways, and the single occupant vehicle to one that includes pedestrian access, biking, and transit. This section highlights the need for residents to have mobility choices so they can drive, ride a bus, bike, or walk around the city, and stresses the need for a balanced blend of mobility choices will help invigorate the city's economy and culture while reducing stress on government services caused by over-reliance on the

car. A review of this plan was provided in the section of this plan that outlines relevant plans and studies.

Beyond the update of the Comprehensive Plan, the Planning Director noted several issues related to transit services that are important to the City Council. These issues include more frequent service to Shenandoah University and greater access for City residents to LFCC.

Winchester-Frederick County Metropolitan Planning Organization

The Winchester-Frederick County MPO is responsible for multi-modal transportation planning in the Winchester-Frederick County Urbanized area. As part of these responsibilities, the MPO led the development of the Winchester-Frederick County Transit Services Plan (2009).

KFH Group staff conducted a phone interview with the MPO Project Manager for the Winchester-Frederick County Transit Services Plan to review transportation needs that were identified during that planning process and to update these needs based on circumstances that had changed. The primary focus of the discussion was the transportation needs specific to the Winchester area.

From the interview the major transportation needs from the human service community detailed earlier were confirmed and appropriately updated. Specific transportation needs highlighted by the MPO included the need for transit services that connect City of Winchester residents to locations just outside the City, the need for more frequent transit services, the need for Sunday service, and the need for service to LFCC.

Old Town Development Board (OTDB)

OTDB is the City of Winchester's "Main Street" program. While functionally part of the City of Winchester, the Board is funded through an assessment on properties within the commercial historic district, and serves as the management and permitting office for the primary and secondary Old Town assessment districts. The OTDB is responsible to the City Council for the improvement, maintenance, development, planning, and promotion of Old Town Winchester.

Through outreach as part of the Winchester-Frederick County Transit Services Plan, KFH Group staff conducted a telephone interview with the Executive Director of the OTDB to discuss public transportation issues with regard to the downtown, tourism, and economic development. The OTDB Executive Director expressed the following opinions:

- A tourist-oriented route would be a tremendous asset to the downtown. Potential routing would include the visitor center on Pleasant Valley Road, the Museum of the Shenandoah, and the downtown area. This type of route could also serve Shenandoah University, as it is located very close to the Visitor's Center. This idea has been discussed in the past, to the point of developing a potential route.

- The hours for a tourist-oriented route would likely include later hours, with a focus on Thursday-Sunday services.

- Winchester Transit's trolleys could potentially work well for a tourist-oriented service.

- Services from local hotels to the downtown would also help support local restaurants.

Winchester-Frederick County Economic Development Commission (EDC)

EDC is responsible for promoting the region to the business community, supporting businesses that locate in the region, providing networking opportunities among businesses, and working to retain existing businesses. Through the previous planning process, KFH Group contacted the EDC to ask if the staff had knowledge of public transportation issues in the region. EDC staff indicated that they do hear from local businesses that additional public transportation options are needed, particularly those that are regional in nature. The largest need for the business community is to get workers to their facilities from locations throughout the Shenandoah Valley.

Colleges/Universities

Shenandoah University (SU)

SU, located in Winchester, is a private university of about 3,500 students. SU offers over 80 programs in six schools, including both undergraduate and graduate programs. About 850 students live on the campus, which is located between Pleasant Valley Road and I-81 south of downtown Winchester.

As noted earlier, the City of Winchester Planning Director noted the need for more frequent transit services to SU. In addition, through the previous planning process KFH Group contacted the Office of Student Services. The following transit needs were articulated by the Associate Vice President for Student Affairs:

- SU has a robust graduate program, including a health programs curriculum that is based at Winchester Medical Center. The SU campus is about 3.5 miles from the medical center and students need to get back and forth between these locations. There currently is not a convenient transit link between these locations. Students could take the Apple Blossom Mall Route and transfer at City Hall to the Amherst Street Route, but the timing is such that they would have to sit for 30 minutes at City Hall. There are several international students enrolled in the graduate program and these students do not typically have cars.

- Residential students need more convenient access to the following locations:
  - Downtown Winchester (about two miles away), including several specific destinations (the Cork building, the Fairfax-Cameron Building)
  - Shopping areas located along a number of commercial strips, including those that are relatively near the campus, but not easy to walk to (those along Pleasant Valley Road and adjacent to the Apple Blossom Mall)
  - Winchester Medical Center

SU does not provide any regularly scheduled student transportation, though they do own two vans that are used primarily by athletic teams. The campus is served by Winchester Transit's Apple Blossom Mall Route, which provides hourly service that does also serve downtown and the major shopping areas along Pleasant Valley Road.

Lord Fairfax Community College (LFCC)

LFCC serves seven Counties in the Shenandoah Valley and Piedmont Region, including Clarke, Fauquier, Frederick, Page, Rappahannock, Shenandoah, and Warren, and the City of Winchester. LFCC has three campuses -- Middletown, Luray, and Warrenton. Among all three locations, LFCC serves more than 7,600 unduplicated credit students and more than 10,900 individuals in professional development and business and industry courses annually.

As noted by several stakeholders, there is a strong need for transportation services that connect the City of Winchester and LFCC. In addition, KFH Group staff previously met with a group of campus staff leaders to discuss the public transportation needs of the campus community, focusing on the Middletown campus.

In 2009, LFCC staff leaders expressed the following opinions concerning the need for public transportation among their students, faculty, and staff, with a particular focus on student needs.

- Currently the only way that students can access the campus is via automobile. Many students share vehicles with family members, which presents a challenge in constructing a convenient class schedule that students will be able to stick with.

- The major population center in the region is in Winchester and LFCC. Middletown is about 11 miles south of Winchester, making the campus inaccessible for students who do not have access to a vehicle. At-risk students who could potentially benefit from attending classes and programs at LFCC are most affected by the lack of a public transportation connection between Winchester and LFCC.

- There are also students who travel from Front Royal, Strasburg, Luray, as well as some who travel from north of Winchester.

- The intersection of Route 81 and Route 66 is close to Middletown. This is a major commuter hub that could perhaps be part of the transit network.

- Students with disabilities that prevent them from driving cannot independently access the school.

- Staff members know that there are potential students who do not attend due to transportation barriers, but they do not know how many people fall into this category.

When asked what type of transit services would help students access the campus, staff expressed the following ideas:

- The transit schedule must be set up with the students' schedules in mind, the schedule must be set up and advertised during the registration period, and the schedule cannot change mid-semester.

- A service with three to four travel options would work for most students. These options would include a trip to campus prior to 8:00 a.m., a mid-day trip (12:00 p.m.-12:30 p.m. or so); a trip between 5:00 p.m. and 5:30 p.m.; and (if possible), trips to serve the 7:00 p.m. to 10:00 p.m. classes. LFCC staff have put together "packages" for students that work well with their other life responsibilities. These "packages" typically include devising schedules that group their classes in blocks on particular days. These packages would be particularly attractive if they could be tied to transit service availability, particularly for the school's at-risk students. It is envisioned that any transit

service provider would work closely with the school to jointly devise and advertise the service.

- Transit services need to be dependable and timely.

- Bike racks on the buses would open up the service to more students, assuming that they could meet the route along the Route 11 Corridor.

- It is likely that a reduced schedule would be appropriate during the summer.

- Staff expressed the following opinions regarding the previously operated service:
  - There was not a lot of publicity
  - It began 3-4 weeks into the semester when students had already made their transportation decisions, as well as their decisions whether or not they could get to campus
  - Service was stopped mid-semester
  - The service was inconsistent

Financing transit options was also discussed and focused on the following:

- The price for transit should be comparable to gas prices.

- It would be most convenient to sell bus passes at the school so that students would not have to worry about a fare each time. There may be ways for the school to help subsidize trips for the students through some of their grant mechanisms.

- There may be a way to add something to their parking fee to help with transit options, but this would likely be a long-term strategy to put in place once a viable program is established. Changes in fees for LFCC are subject to State approval.

Chapter 4

Service and Organizational Alternatives

INTRODUCTION

This fourth chapter prepared for the Winchester Transit TDP provides a range of service and organizational alternatives that the City considered when planning transit services for the six-year planning horizon covered by the TDP. These alternatives were developed based on the data compiled and analyzed in Chapters 1-3, as well as the recommendations that were provided in the *2009 WinFred Transit Services Plan (WinFred Plan)*. The service alternatives are presented first, followed by the organizational alternatives.

SERVICE ALTERNATIVES

Chapter 3 provided an evaluation of current WinTran services, as well as analysis of transit needs based on quantitative data and on input from WinTran customers and other key stakeholders. Through the service review, needs assessment, and outreach, there are specific service improvements that were considered for implementation. These alternatives focused on:

1. Improving the efficiency and effectiveness of the current route network;

2. Potential geographic changes to the current route network within the City of Winchester;

3. Potential geographic expansions of the current route network into surrounding Frederick County;

4. Additional days, hours, and frequency of service; and

5. Improved passenger amenities.

Each service alternative is detailed in this chapter, and includes (where applicable):

- A summary of the service alternative,
- Potential advantages and disadvantages,
- An estimate of the operating and capital costs, and
- Potential funding sources or issues.

It should be noted that these alternatives were designed to serve as a starting point and were modified based on the needs of the City and community input.

1. Improving the Efficiency and Effectiveness of the Current Route Network

There are a number of relatively cost neutral modifications that could be made to improve the efficiency and effectiveness of the current route network. These concepts are described below and are not listed in any particular order. The focus of this first set of alternatives is to improve services within the City without incurring new expenses or expanding beyond the City limits.

1A. Shift Change

The WinTran mid-day driver shift change currently occurs at the City Yards, with the drivers traveling off-route, with passengers on-board, through the back gate of the property. The morning drivers pull their fareboxes and leave the bus and the afternoon drivers take over, replacing the fareboxes. The afternoon drivers then travel back to downtown. This activity typically results in the buses arriving a little late back downtown.

An alternative to this scenario is to use WinTran's staff car and have the three/four afternoon drivers ride together downtown. The shift change would occur at the transfer location and the morning drivers would travel together in the staff car back to the City Yards. This arrangement is typical for many transit programs.

Advantages

- Allows the shift change to occur without taking the vehicles off-route.
- Allows the shift change to occur without making the vehicles late.
- Does not inconvenience passengers.

Disadvantages

- Ties up the staff car mid-day, everyday. It should be noted that a spare vehicle could be used if the staff car was needed for another purpose on a particular day.

Cost

- While there is a small incremental cost associated with having the drivers use the staff car or a spare vehicle to move the shift change function from the City Yards to Downtown, there is also a corresponding savings associated with not bringing each revenue vehicle into the City Yards.

1B. Change Route Pairing: Pair Amherst with Apple Blossom

There are ongoing trip needs for Shenandoah University students to get to the Valley Medical Center on Amherst Street. This trip need is not currently met, because the riders have to wait 30 minutes at the transfer location to access the Amherst Route after coming downtown on the Apple Blossom Route. By linking the Apple Blossom Route and the Amherst Route, this trip need can be met without additional cost or changes to the actual routes.

Pairing these two routes together would leave the Northside and South Loudoun routes as pairs, which is also logical, as together they provide north-south service through the City.

Advantages

- Meets a trip need that has been identified without incurring additional cost.
- Would be relatively easy to implement.

Disadvantages

- The only disadvantage is that this alternative requires changes to the routing pattern, which will be disruptive.

Cost

- This change is cost-neutral, other than the cost of re-printing schedules.

1C. Reduce Service on the Amherst Route on Saturdays/Add to Apple Blossom Route

The boarding and alighting counts conducted in November 2010 showed there were only 15 passenger trips recorded on the Saturday rider count for the Amherst route. The low Saturday ridership on this route is to be expected, as the route travels from downtown along Amherst Street to the Winchester Medical Center, serving several medical offices along the way, which are not likely open on Saturdays, and very few residences or shopping opportunities.

The focus of this alternative is to reduce the number of trips for the Amherst Route on Saturdays, and add these trips to the Apple Blossom Route. This alternative will work well if the two routes are interlined, as suggested in Alternative 1B. Under this proposal, the Amherst Route would run at 9:00 a.m., noon, and at 4:00 p.m. so that the Winchester Medical Center continues to be transit-accessible on Saturdays, but reflecting the lower demand for service. The runs that currently operate at 10:00 a.m., 11:00 a.m., 1:00 p.m., 2:00 p.m., and 3:00 p.m. would instead serve the Apple Blossom Route (WinTran's busiest route), which would then enjoy 30-minute headways for part of the day.

Advantages

- Will likely improve overall productivity by reducing service on a low-performing route and increasing service on a high-performing route.
- Maintains limited transit access to the Medical Center on Saturdays.
- Provides additional service to shopping areas on Saturdays, which is a traditionally busy shopping day.

Disadvantages

- Inconveniences a few people who ride on the discontinued trips.

Cost

- This change is cost-neutral, other than the cost of re-printing schedules.

1D. Re-configure Trolley Route

Historical WinTran data, as well as boarding and alighting data, indicate that the Trolley route is the lowest performing route in the network. The route is a large loop that serves many areas already served by other routes. The focus of the route re-

configuration is to maintain the primary stops served by the route, but provide service in a more direct and convenient fashion.

The proposal is to re-brand the route as the Mid-Town Trolley and run the following route:

Outbound:

- Downtown Transfer Location
- South on Valley Avenue
- West on Jubal Early
- South on Harvest
- East on Cedar Creek
- North on Valley Ave.
- East on Jubal Early, providing service to a currently un-served segment
- South on Pleasant Valley to serve Walmart and the Mall

Inbound:

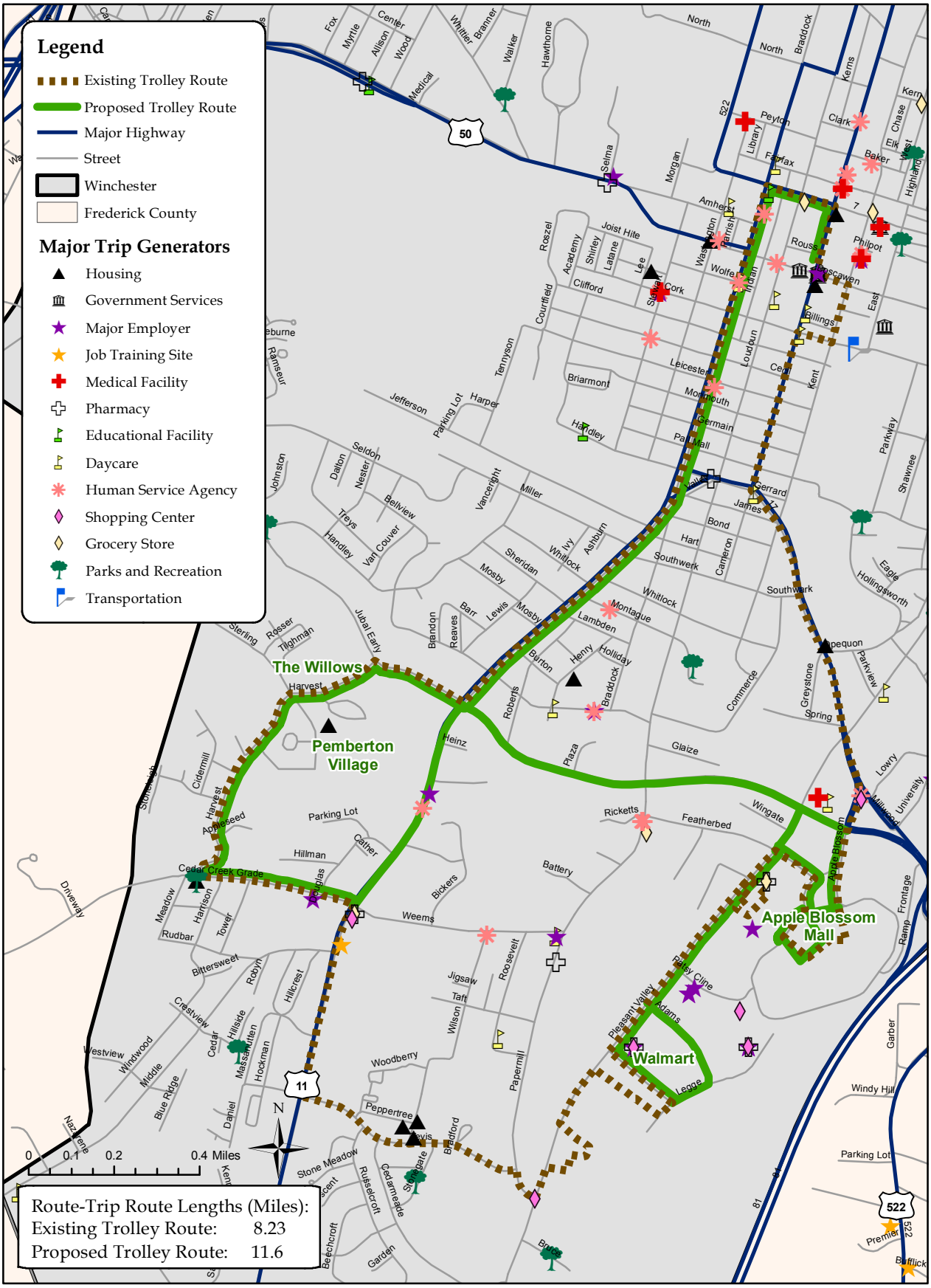
- Walmart and the Mall
- West on Jubal Early
- South on Harvest
- East on Cedar Creek
- North on Valley Avenue back to Downtown

The proposed Mid-Town Trolley Route is shown in Figure 4-1 and is 5.8 miles one-way, or 11.6 miles round trip. With this route length, the route will still provide one-hour headways, but will provide bi-directional rather than loop service.

Advantages

- Provides a linear route rather than a loop so that riders do not have to ride around an entire loop to complete their trips.
- Provides direct service between the housing areas off of Harvest Drive and the Shopping areas along Pleasant Valley Road.
- Provides direct service between the housing areas off of Harvest Drive and Downtown.

Figure 4-1: Proposed Mid-Town Trolley Route



Disadvantages

- Discontinues service by the trolley on a few segments (Valley Ave, between Weems and Tevis; Tevis Road; and Pleasant Valley, south of Walmart). It should be noted that ridership on these segments is very low.

Cost

- This change is cost-neutral, other than the cost of re-printing schedules.

2. Potential Geographic Changes to the Current Route Network Primarily within the City of Winchester

Included in this category of service improvements are potential geographic changes to the route network that focus on areas primarily contained within the City of Winchester. Alternative 1D described above could also be considered to fall within this category.

2A. Split the Northside Route

The Northside route serves a number of high-need housing areas, as well as the Health Department and the commercial corridors of N. Loudoun Street and US522/North Frederick Ave. The route currently has a split, serving three stops on Fort Collier Road, including the Salvation Army, on four designated trips each day. The human service community has requested additional trips for the Salvation Army, but the split schedule does not allow enough time for this deviation on each run.

The proposal calls for the following changes:

- A Northside West route – this route would be the current Northside Route without the deviation to the Salvation Army. This route would be paired with the South Loudoun Route.

- The Northside West route could also extend a block to serve the Martin's Food store on Rivendell Court.

- A Northside East route – this route would serve the North Loudoun Street stops, then would serve Collier Road to the Salvation Army and then on further to the large townhouse community adjacent to Stratford Drive, where there is a bus turnaround. After serving Collier Road, the route would serve the Commercial Street/Pennsylvania Avenue area before returning to downtown. This split will require an extra vehicle, which could serve the

Apple Blossom Mall route as the other paired route, providing 30 minute headways on the busiest of the Win Tran routes.

- This proposal assumes that the Northside East/Apple Blossom vehicle would be in operation Monday-Saturday.

- Figure 4-2 provides a map of the proposed Northside East Route.

Advantages

- Provides additional service to the Salvation Army, which has been requested.
- Provides service to a large townhome community that does not currently have service.
- Eliminates the need for different routings on the Northside route, thus eliminating passenger confusion.
- Improves service to the Health Department.
- Improves headways to 30 minutes on the Apple Blossom Route, which is the City's busiest route.

Disadvantages

- Extends service to a residential area outside of the City.
- There are significant costs associated with this alternative.

Cost

- With 14 daily revenue hours (M-F) and 8 revenue hours on Saturdays, the annual fully-allocated operating cost for this proposal would be about $193,000. WinTran has a vehicle that can be used for this expansion.

2B. Adjust the South Loudoun Route

The South Loudoun Route is the longest in the route network, requiring an operating speed of 18.4 miles per hour, which is well above the system mean of 13.15 miles per hour. The boarding and alighting counts, as well as anecdotal information provided by staff, indicate that there is not any ridership on the loop through the industrial park (Battaile Road/Shawnee Drive loop). It is proposed that this loop be eliminated, with the southern terminus of the route changed to NW Works, located on Shawnee Drive. This route arrangement would preserve service to the multi-family housing located along Shawnee Drive, as well as service to NW Works, but would eliminate the non-performing large loop through the industrial park.

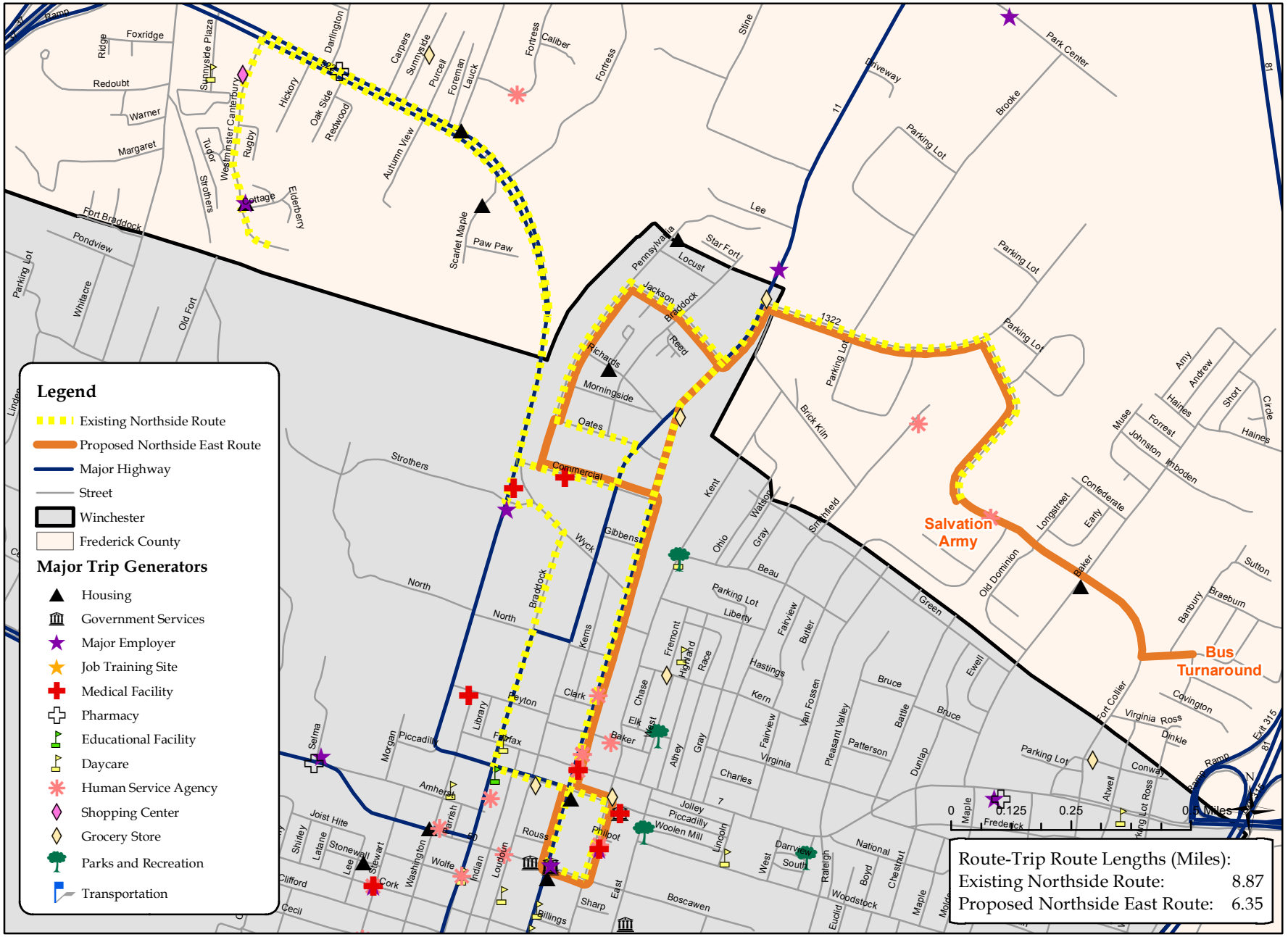


Figure 4-2: Proposed Northside East Route

A map of this proposed route configuration is provided in Figure 4-3.

Advantages

- Eliminates non-performing route segments.
- Reduces the overall route mileage, thus saving some mileage-based expenses and allowing for improved on-time performance.
- Preserves service to multi-family housing and NW Works.

Disadvantages

- Reduces service to major employers.

Cost

- This alternative offers minor reductions in mileage-related expenses. There would not be a major cost savings, as the route timing would remain similar.

2C. Downtown Trolley Circulator

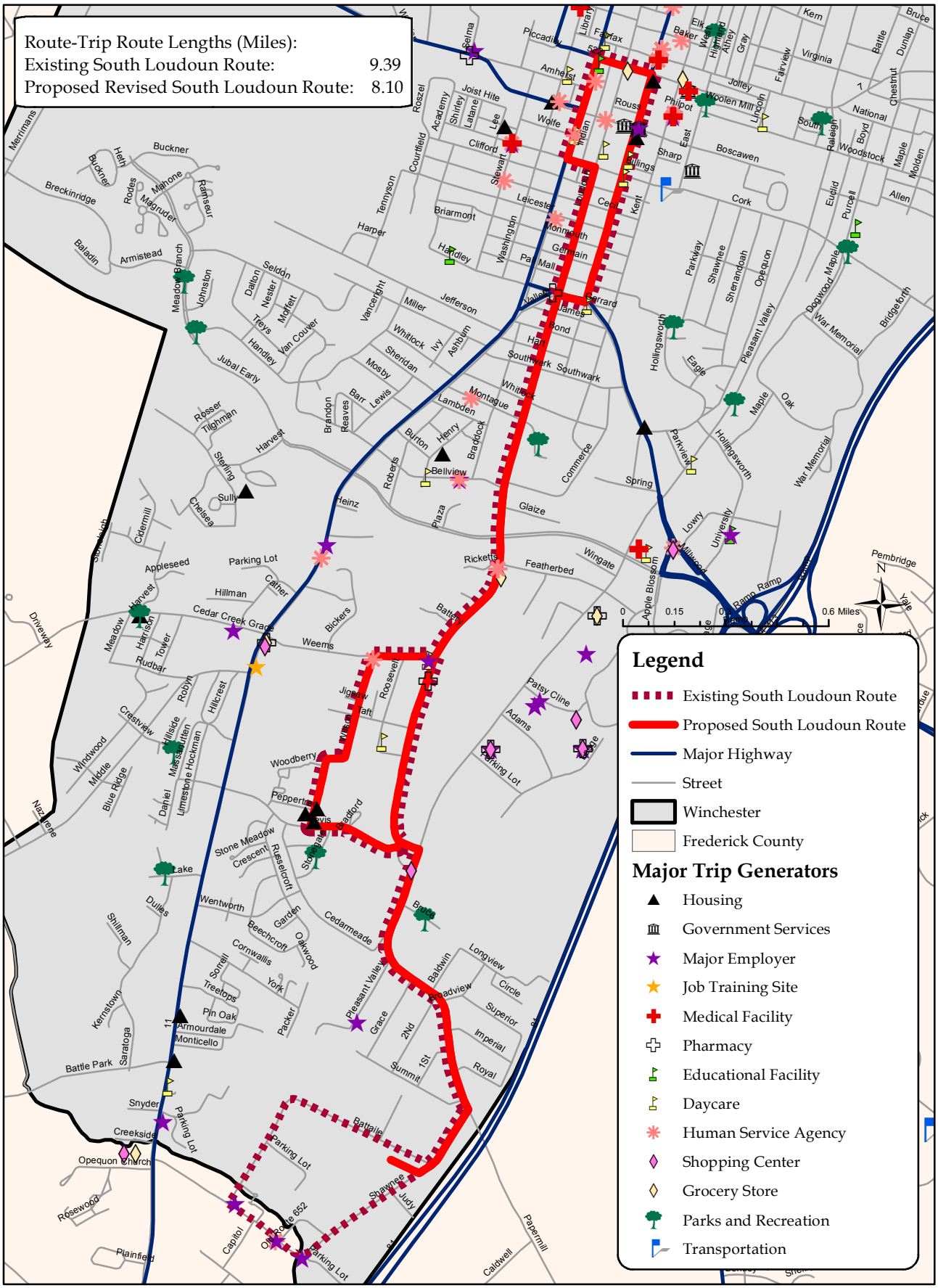
There has been interest expressed over the last several years by the Old Town Development Board and the Winchester-Frederick County Visitor's Center to operate a tourist-oriented trolley route, aimed at transporting visitors from the Visitor's Center to the Old Town Pedestrian Mall, to the Museum of the Shenandoah Valley, and to Jim Barnett Park (when events are scheduled). This alternative takes that concept and adds a downtown parking circulator function to it. The concept is to connect the downtown parking garages to the Old Town Pedestrian Mall and then travel to the Museum of the Shenandoah Valley, back downtown to the parking garages, and then to the Visitor's Center. The route would then do the same in reverse, bringing people from the Visitor's Center to downtown and then on to the Museum of the Shenandoah Valley. A map of this proposed route is shown in Figure 4-4.

Advantages

- Connects parking and major points of interest within the City, allowing people to park just one time to visit several attractions.

- Assists the tourism community in the City.

Figure 4-3: Proposed Revised South Loudoun Route



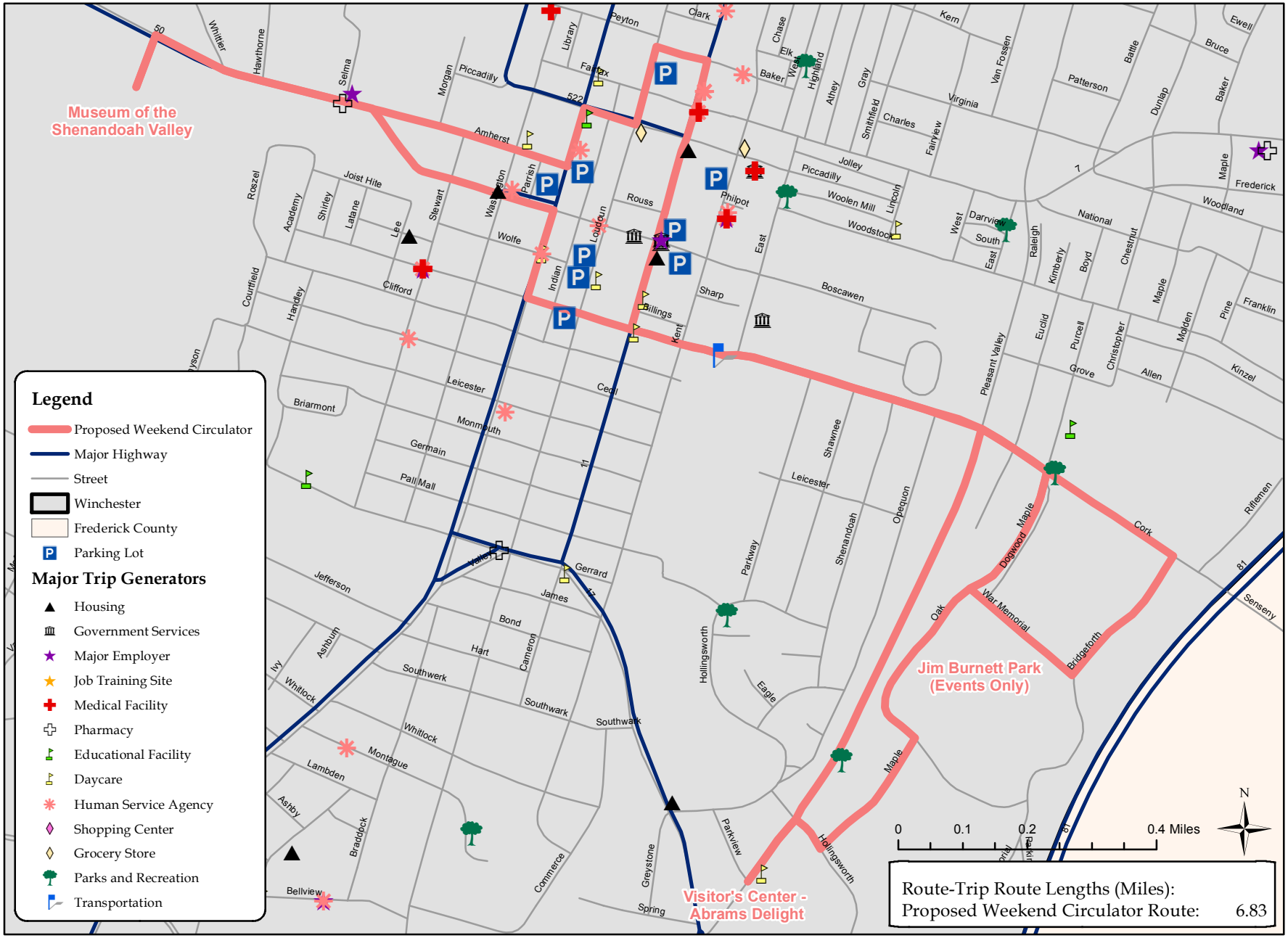


Figure 4-4: Proposed Downtown Trolley Circulator Route

Disadvantages

- There may not be a strong demand for this service, as parking is relatively available throughout the downtown and at the major points of interest.

Cost

- If this service is operated Fridays and Saturdays for a 12-hour service span, the total annual service hours would be 1,248, resulting in a fully-allocated annual cost of about $60,000. WinTran has a trolley that could be used for the service. Revenue to fund this service could come from parking fees, the City, and/or a demonstration grant from VDRPT.

3. Potential Geographic Expansions of the Current Route Network into Surrounding Frederick County

The concepts articulated in this section of the alternatives were taken largely from the *WinFred Plan*. These projects are all still desired by the community and have not been implemented. The top five geographic locations listed by riders who completed the on-board survey were all outside of the City, with Walmart, Martin's, and "outside Winchester" the top three. It should be noted that implementing additional transit services outside of the City will require a financial agreement with the County so that the costs are shared equitably.

3A. Extend Fixed Route Transit Services along Major Corridors into Frederick County

A major finding from the *WinFred Plan* and from the current TDP survey was that there are several important transit origins and destinations that are relatively close to the existing fixed route transit network, but are not served. These areas typically include the major travel corridors through the City of Winchester that extend into the County. In looking at these areas, the following areas should be considered for service extensions:

3.A.1. Route 7/Berryville Avenue. The demographic analysis conducted for the *WinFred Plan* showed a geographic area of high transit need located East of I-81 and south of Route 7. This area includes a number of townhomes and apartments, including Park View Apartments, Park Place, Brookland Manor, Windstone Townhomes, Ash Hollow Estates, Pioneer Heights, and others. Also in the corridor is the Regency Lakes development, which is a high density modular home community. The Gateway Center, which includes a Martin's grocery store and several other neighborhood retail shops, is also located in this corridor.

One way to serve this area would be to extend the Berryville Avenue route to make a short loop, following Valley Mill Road and then turning left into Greenwood, and left back onto Route 7. The bus could then pull into the Regency Lakes development and stop at the community center, than back out to Route 7 and serve the Gateway Center. The route would then come back into Winchester as it does currently.

Another consideration for this route is to use it to serve the Salvation Army and the Huntington Manor Townhouse community adjacent to Fort Collier Road (close to Route 7). Figure 4-5 shows these two options, which were included as alternatives in the *WinFred Plan*.

In making these route extensions, the Berryville Avenue route will almost double in length, making it a stand-alone route.

Advantages

- Provides transit service to many high-need, high density housing areas that do not currently have transit services.
- Provides transit service to the Gateway Center, which was requested on the survey and serves a number of local shopping needs (and employs people as well).
- Would likely produce significant ridership, with both new origins and destinations.

Disadvantages

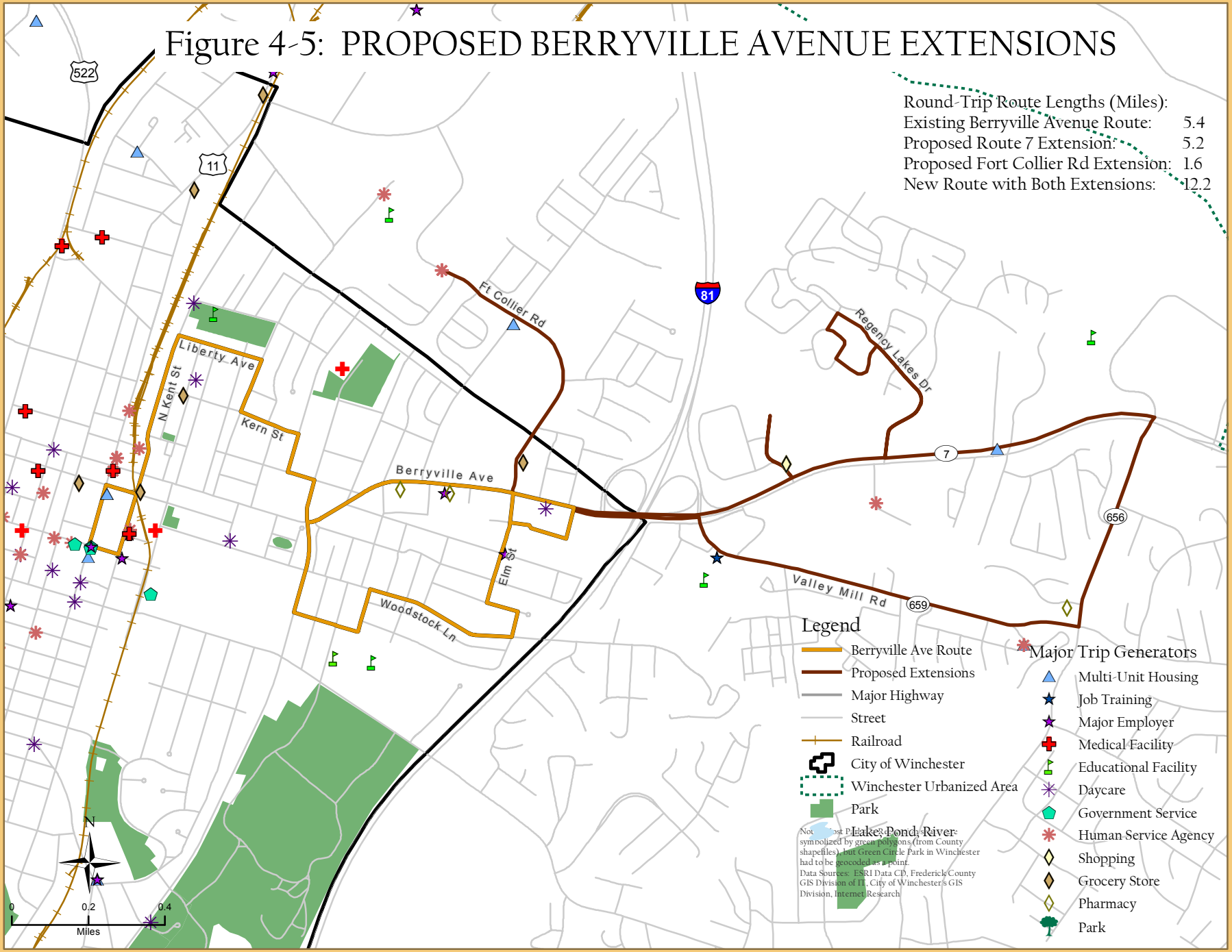
- Would result in major route re-structuring.

Cost

- If this route extension were to be implemented, the cost of the Berryville Avenue route would approximately double, from about $98,500 a year (including the new extended service hours) to about $197,000. This is based on 3,986 operating hours at $48.39 per hour.
- This route extension would likely require an additional vehicle.

3.A.2. Extend the Amherst Route to Walmart. Many of the survey respondents (both for the current TDP survey and for the *WinFred Plan* indicated that they would like to have service to the new Walmart on Route 50 West (just to the west of the intersection of Route 50 and Route 37). This service could be accomplished by extending the Amherst route by 1.9 miles round trip, or about a 34% increase from the current route length of 5.6 miles.

Figure 4-5: PROPOSED BERRYVILLE AVENUE EXTENSIONS



Advantages

- Adds a major destination into the route network.

Disadvantages

- This extension may make it difficult for the Amherst Route to complete its round trip in 30 minutes.
- Would add expense for only one new destination, albeit a significant one.

Cost

- This extension would cost about $30,000 annually, based on the mileage increase of 34%.

3.A.3. Extend Service to the Millwood Ave/522 South Corridor. There are a number of significant transit destinations that are located in this corridor, including a number of hotels and retail centers (Delco Plaza), the Virginia Employment Commission, counseling services, and the Airport Industrial Park. The Apple Blossom Mall Route could be extended to service this area. The extension is shown in Figure 4-6 and is 4.7 miles in length, making the entire route 11.6 miles round trip. This would result in the route taking a full hour to complete, rather than the current 30 minutes.

Advantages

- Provides transit services to significant transit destinations that are not currently served, including the Virginia Employment Commission.
- Will extend the route network and increase ridership.

Disadvantages

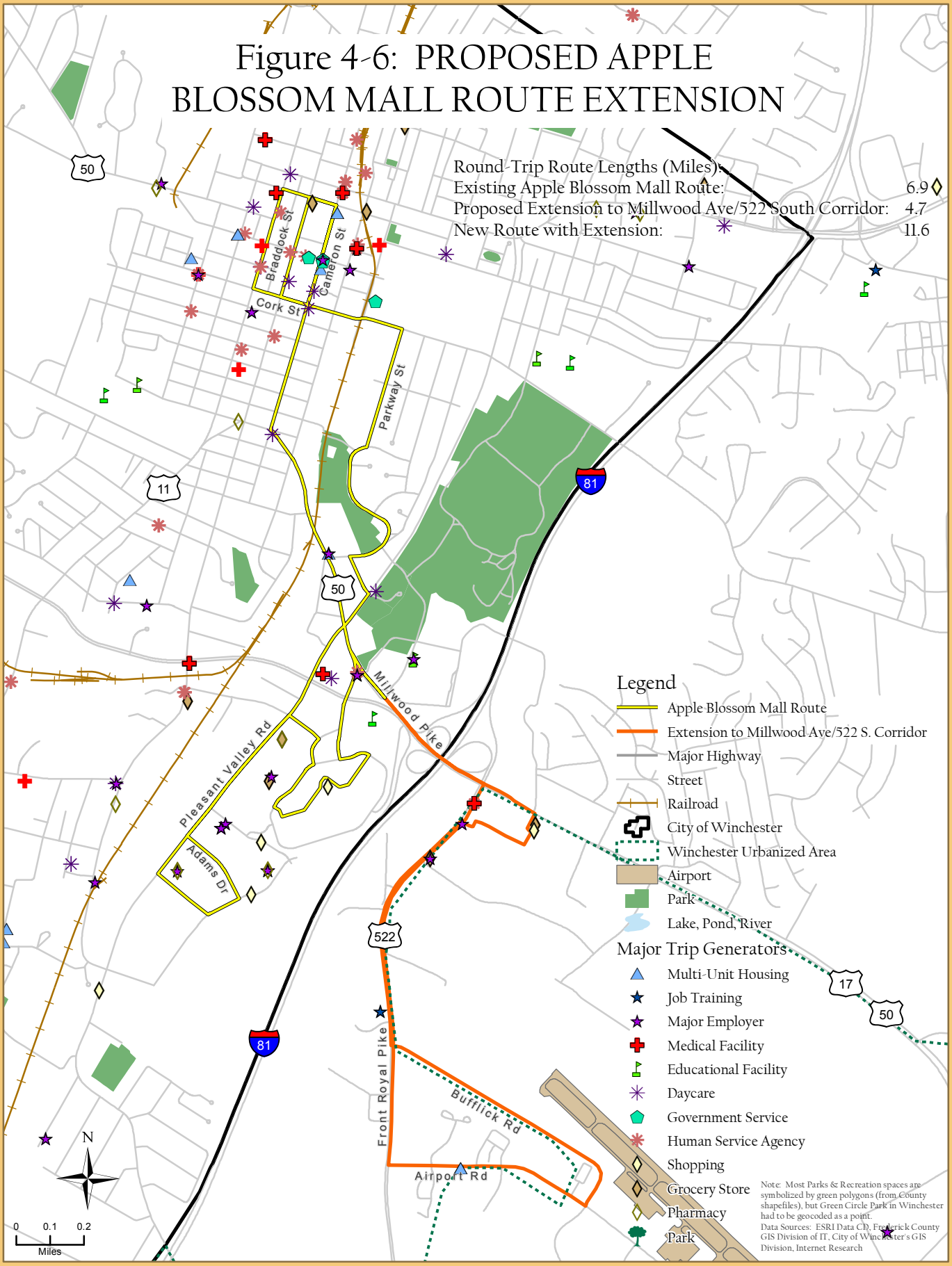
- Significantly alters the Apple Blossom route, which will result in route re-structuring.

Cost

- This extension (using hours as a benchmark) will cost about $98,500 per year.
- This extension will likely require an additional vehicle ($73,500).

3.A. 4. Extend Northside Route to Rutherford Crossing. There is another newly developing area just north of Winchester along Route 11. A new shopping center has recently opened with a Target, a Lowe's, and several smaller shops. An office

Figure 4-6: PROPOSED APPLE BLOSSOM MALL ROUTE EXTENSION



building with major federal employment is also located adjacent to the shopping center. The closest current Winchester Transit route to Rutherford Crossing is the Northside Route. The extension to Rutherford Crossing would involve an additional 4.1 miles, bringing the Northside Route to 12.8 miles total. There are also a few employers in the Route 11 North Corridor in between the current route terminus and the new shopping center. Figure 4-7 provides a map of this route.

Advantages

- Serves additional retail and employment areas.
- Would extend the route network and likely increase ridership.

Disadvantages

- This extension would result in a route re-structuring as the Northside route would be too long to complete in 30 minutes.

Costs

- This extension (using hours as a benchmark) will cost about $98,500 per year, including the new longer operating hours.
- This extension will likely require an additional vehicle.

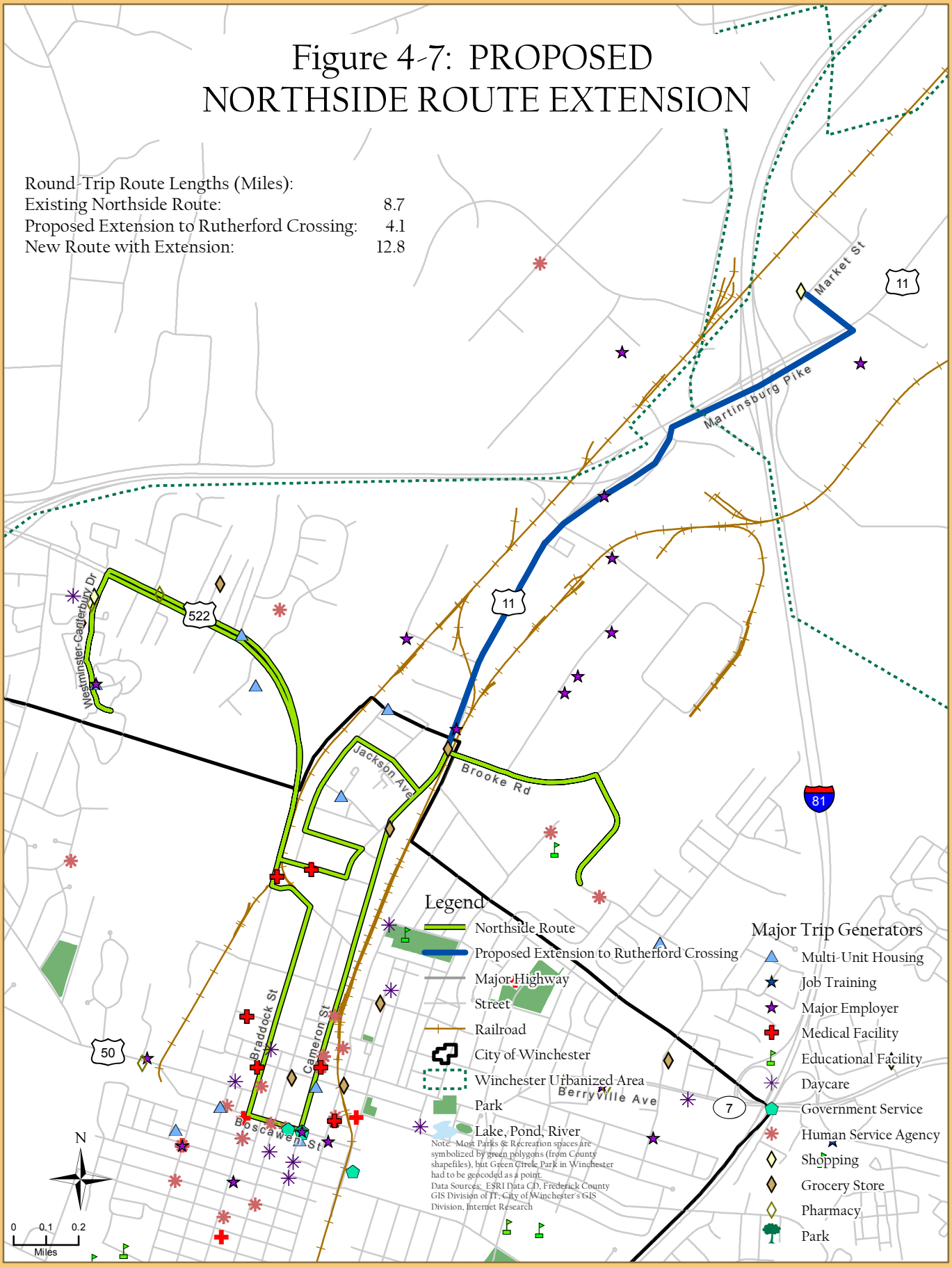
3B. Provide Corridor Service on Route 11 - Local

The need for transit services between Winchester and Stephens City, including serving the DMV on Route 11, and the need to connect to Lord Fairfax Community College (LFCC) in Middletown were articulated by stakeholders for this TDP as well as during the *WinFred Plan*. This corridor was served by a transit demonstration project in 2004-2007 and ridership did not meet expectations, however, with more collaborative route and schedule planning (specifically with stakeholders from Lord Fairfax Community College), and shared financing, this corridor should be looked at again for service. Additional research concerning the specific route and schedule of the demonstration project is needed to ensure that past errors are not repeated.

Stephens City also exhibits high relative transit needs, specifically to the north of Route 277 and to the east of Route 11 and Route 81. A short diversion to serve local Stephens City needs should also be considered for this route.

If Winchester Transit desires to move forward with this corridor route there will need to be an outreach process to other stakeholders in order to develop an equitable financing arrangement. It is likely that this route would be eligible for Job Access and

Figure 4-7: PROPOSED NORTHSIDE ROUTE EXTENSION



Reverse Commute (JARC) funding, as it would provide transportation service for people to access job training opportunities at LFCC. JARC funding for operating projects provides up to 50% of the net operating deficit, while capital items are funded up to 80% federal and 10% state. The remaining balances would need to be funded locally.

Advantages

- Meets a need that was articulated during this TDP as well as previous transit studies in the region.
- Allows full access to Lord Fairfax Community College from the major population centers in the Winchester area. This will greatly help current and potential community college students who either do not drive or do not have access to a car on a regular basis.
- Opens up additional employment and commerce options for people who live in the corridor.
- Provides transit access to the DMV.
- Provides service for Stephens City.

Disadvantages

- Previous service in this corridor was not deemed successful.
- Would require cooperation among several entities to finance the route.

Cost

- A 12-hour service span Monday to Friday and an eight hour service span on Saturdays, would cost about $171,700 annually (assuming one vehicle is devoted to the service). If the route operates on a deviated schedule, there would not be an additional expense for ADA paratransit. If the route is fixed, there would also be a need to provide ADA paratransit services within ¾ mile of the route for people with disabilities.
- A vehicle would need to be purchased for this route (about $73,500).

4. Additional Days, Hours, and Frequency of Service

This section of the service alternatives describes improvements to the level of service provided on the existing WinTran system. These types of improvements were high on the list of service requests received via the on-board survey conducted in November, 2010 for the TDP.

4A. Further Increase the Days and Hours of Service

In 2009 Winchester Transit extended service until 8:00 p.m., which addressed a portion of the evening trip needs, but did not address the need to get people home after a retail job (i.e., nine or ten p.m.). The number one request on the TDP on-board survey was for extended service hours, followed by the addition of Sunday service. Sunday service is an issue for current riders, as they do not have mobility options on Sundays. To maximize productivity, increasing hours or days of service could be incrementally or partially implemented (i.e. implement on the busiest route(s) that have specific destinations that are open late and/or on the weekends.) It should be noted that ridership between 6:00 p.m. and 8:00 p.m. is currently relatively low.

Advantages

- Providing later service hours allows people to access employment opportunities at retail locations and allows people to attend community meetings and cultural events that are typically held in the evening.
- Additional hours of service on Saturdays would increase opportunities for retail workers, who typically work later than 5:00 p.m. on Saturdays.
- Sunday service would meet a variety of trip needs, including retail/service employment, shopping, and worship.

Disadvantages

- Would add service during times of the day/days of the week that may not generate high ridership and would involve significant cost.

Cost

- If three vehicles are used to provide service (as is currently the case), along with one ADA paratransit vehicle, every hour of service extension will cost approximately $193 (assuming all three vehicles are extended). If services were extended Monday through Friday from 8:00 p.m. to 9:00 p.m., it would cost about $ 49,000 annually.
- If services were extended until 9:00 p.m. on Saturdays, the annual cost would be about $ 40,000.
- Sunday services, for an eight-hour service day using three vehicles (plus an ADA vehicle), would cost about $80,500 annually.

4B. Increase the Frequency of Service

Stakeholders and survey respondents indicated a need for more frequent transit service. After extended service hours and Sunday service, increased frequency was the third most frequently requested service improvement on the recent TDP survey. Increasing transit frequency from hourly service to 30-minute service would make the route network more appealing for choice riders, as well as more convenient for all riders. This alternative is one of the costliest alternatives, as it doubles the vehicle operating hours.

Advantages

- Provides more convenient mobility options for current riders.
- Increases the attractiveness of the system for choice riders.
- Will increase ridership.

Disadvantages

- Doubling the service will not double the ridership, thus the productivity measures (i.e., trips per hour, trips per mile) will decline somewhat.
- Significantly increases costs without adding any new geographic areas of service.

Cost

- Increasing frequency Monday-Friday, from hourly to 30-minutes would cost about $657,000 annually (operating costs) and require three additional vehicles.

5. Improved Passenger Amenities

The fourth most frequently requested improvement from the TDP survey was for additional shelters and benches. As noted in Section 1, WinTran has recently received four additional shelters and will be placing them in service in the Spring of 2011. For the six-year TDP planning horizon, it is proposed that WinTran add two shelters per year to the system, which would total 12 additional shelters, or two per route.

Bus stop signs are also important passenger information and marketing amenities. While on site the study team noticed that the new bus stops signs that have been installed as part of the larger streetscape projects are very small and have no identifying information. As part of the passenger amenity alternative, it is proposed that WinTran design, purchase and install new bus stop signs that include the logo, a

telephone number to call for information, the web address, and what route is served by the particular stop. Major stops should also have route and schedule information posted.

Advantages

- Providing a more comfortable place for passengers to wait is a courtesy for them and projects the image that the City cares about its bus riders.

- Passenger waiting shelters also increase the visibility of the transit system in the community and provide fixed locations to display transit system information to the public.

- Bus stop signs that convey system information are a convenience for passengers and a good marketing tool for WinTran.

Disadvantages

- The only disadvantage to providing additional waiting shelters and more informative signs is the cost, both to purchase and install the shelters and signs, but also to keep them maintained.

Cost

- Shelters cost about $10,000 per shelter installed and bus stop signs are about $100 dollars per sign. It should be noted that both of these items are capital items and are typically eligible for federal/state funding assistance of up to 80% federal and 10% state, leaving 10% of the cost to be funded locally.
- Adding 12 shelters will cost about $120,000, $12,000 of which would be local funding.
- Replacing all 200 or so of WinTran's bus stop signs with updated signs would cost approximately $20,000.

Summary of Service Alternatives

Table 4-1 provides a summary of the proposed service alternatives.

Table 4-1: Winchester Transit Summary of Service Alternatives

Service Alternative	Purpose	Annual Operating Cost	Capital Needed	Capital Cost
Service Alternative #1: Improve the Efficiency and Effectiveness of the Current Route Network				
1A. Shift Change Location	Eliminates the need for the vehicles to travel off-route during the driver shift change.	$ -		
1B. Pair Amherst with Apple Blossom	Provides a direct linkage between the two routes, which has been requested.	$ -		
1C. Reduce Service on the Amherst Route on Saturdays/Add to Apple Blossom	Improve productivity and improve service on the system's busiest route.	$ -		
1D. Re-Configure Trolley Route	Provide more direct service for riders, with the goal of improving route productivity.			
Service Improvement #2: Potential Geographic Changes to the Current Route Network Primarily within the City				
2A. Split the Northside Route	Provide additional service to the Salvation Army, extend service to a large townhome community, improve service to the Health Department, and eliminate the need for different routings.	$ 193,000	1 bus - WinTran has one it can use	
2B. Adjust the South Loudoun Route	Reduce the route length and eliminate a non-performing route segment.	**$ -**		
2C. Downtown Trolley Circulator	Connect parking and major points of interest within the City and to assist the tourism community.	$ 60,000	1 Trolley, which WinTran has	
Service Improvement #3: Potential Geographic Expansions of the Current Route Network into Surrounding Frederick County				
3A.1. Berryville Avenue	Provide service to the Route 7 Corridor in Frederick County, including multi-family housing and shopping.	$ 98,500	1 bus	$ 73,500
3A.2. Extend Amherst to Walmart	Adds a major destination to a low-performing route.	$ 30,000	0	

Table 4-1: Winchester Transit Summary of Service Alternatives

Service Alternative	Purpose	Annual Operating Cost	Capital Needed	Capital Cost
3.A.3. Extend Service to the Millwood/US 522 South Corridor	Provides service to significant transit destinations that are not currently served, including the Virginia Employment Commission.	$ 98,500	1 bus	$ 73,500
3.A.4. Extend Northside Route to Rutherford Crossing	Provides service to additional retail and employment areas.	$ 98,500	1 bus	$ 73,500
3.B. Provide Route 11 Corridor Service to Stephens City and Lord Fairfax Community College.	Meets a number of transit needs that have been requested and provides transit access to the region's community college.	$ 171,700	1 bus	$ 73,500
4. Additional Days, Hours, and Frequency of Service				
4.A. Further Increase the Days and Hours of Service (later and on Sundays)	Later hours would allow people to access retail employment opportunities, attend community meetings, and cultural events. Sunday service would allow mobility for transit riders on Sundays.	$ 169,500	0	$ -
4.B. Increase the Frequency of Service	Provides more convenient mobility options for current riders and increases the attractiveness of the system.	$ 657,000	3 buses	$ 220,500
5. Improved Passenger Amenities				
Provide Additional Shelters and More Informative Bus Stop Signs	Provides a more comfortable place for passengers to wait. More informative signs are a convenience for passengers and a good marketing tool.	$ -	**12 shelters - 200 bus stops signs**	$ 140,000
TOTAL, ALL POTENTIAL ALTERNATIVES		$ 1,576,700		$ 654,500

ORGANIZATIONAL ALTERNATIVES

Organizational alternatives include proposals for potential changes that affect the way that transit is guided, administered, and managed in the City. There are four potential changes that fall under this category that were relevant for the City of Winchester to consider. The first three proposals involved only the City, while the fourth discussed the idea of a regional agreement or entity that may be necessary to implement services that travel outside of the City of Winchester.

1. Transit Advisory Committee (TAC)

Many transit agencies have found that it is helpful for them to have a TAC. A TAC is comprised of community stakeholders who have an interest in preserving and enhancing transit in the community. Typical TAC members would include representatives from the following types of organizations:

- Department of Social Services
- Health Department
- Human Service Agencies
- Department of Aging/Senior Services
- Metropolitan Planning Organization/Rural Planning Organization
- Chamber of Commerce
- Community College
- Disability Advocates
- City/County Planning Department
- Elected Official Liaison

The role of a TAC is to help the transit program better meet mobility needs in the community by serving as a link between the citizens served by the various entities and public transportation. A transit advisory committee is a good community outreach tool for transit programs, as having an ongoing dialogue with stakeholders allows for a greater understanding for transit staff of transit needs in the community, as well as greater understanding by the community of the various constraints faced by the transit program. TACs also typically serve in an advisory capacity for TDPs and other transit initiatives.

Advantages

- Provides a forum for dialogue between the community and the transit program.
- Provides a venue for community networking.
- Can be a good community relations and marketing tool.

Disadvantages

- Takes staff time to organize and document committee meetings and initiatives.

Cost

- The expenses associated with forming a transit advisory committee are modest and include the cost associated with the staff time spent planning and organizing the meetings, as well as any printing and presentation materials needed for the meetings.

2. Operations Manager

WinTran currently operates with a Transit Director, an Administrative Clerk, and the drivers. There is not a staff person whose role it is to make sure that transit operations are running smoothly each day. This alternative proposes to add a staff position whose job it would be to oversee the actual operations of the system. Duties would include driver hiring, training, scheduling, oversight, safety, serving as liaison to the City's maintenance shop, and serving as the driver of last resort.

Advantages

- Would provide additional oversight of the operation, including better coverage for when drivers are sick or incidents occur.
- Would enable the implementation of more extensive driver training programs.
- Would free up the Director's time to work on planning, outreach, and marketing initiatives.

Disadvantages

- The only disadvantage to hiring an operations manager is the cost.

Cost

- The salary range for a transit operations manager for a small transit agency would likely range between $35,000 and $45,000 annually, plus fringe benefits.

3. Privatization

The City has recently published a "Best Value Acquisition," soliciting interest in privatizing the transit program in an effort to determine if it would be more cost effective for a private contractor to run transit in the City, rather than City staff. There are many cities, counties, and public bodies that use contractors to operate transit.

The City has been pursuing this option independently of the TDP process and as such, KFH Group has not examined the pros and cons to privatizing transit in the City. KFH Group can do so if it is the desire of the City and VDRPT to provide this analysis, but it is not currently in the scope of work for the TDP. It is mentioned here for reference, as the outcome will be relevant to the administration and operation of public transportation for the six-year planning horizon. It also should be noted that privatizing transit would not relieve the City of the local match requirements associated with the Federal Section 5307 grant that helps fund service.

4. Regional Issues

The transit needs analysis conducted for this TDP and the *WinFred Plan* each indicated that there is a need to expand the WinTran service beyond the City of Winchester's borders. While doing so will greatly benefit City residents, there are also benefits for Frederick County residents and businesses. In acknowledgement of the shared benefits, a cost-sharing mechanism will be needed if these services are to be implemented. There are two primary ways that this can be accomplished:

- Contractual Agreement
- Forming a Joint Regional Entity

4A. Contractual Agreement

The simplest organizational option for expanding service beyond the City is to maintain the operation of transit services by the City of Winchester through the current WinTran structure and grow the system via contractual agreements. This alternative would be the simplest by maintaining the existing administrative and operational staff and current vehicle fleet, with expansion as needed based on the service improvements chosen.

The existing structure could serve as the foundation for a regional transit system, with system expansions taking place through contractual agreements with Frederick County and potentially other jurisdictions/entities. The City would remain the operator, with additional funds provided by neighboring jurisdictions to serve areas

outside of the City. This strategy would provide customers with seamless regional services, and offer access to the many destinations and needed services in the area.

Advantages

- Easy to implement, requiring only contractual agreements to expand the base of service to meet the transit needs of the residents of neighboring jurisdictions.
- Allows for seamless connectivity from regional services to the City's route network.

Disadvantages

- Does not create "ownership" for the other jurisdictions. Control over the system would remain with the City.
- This structure has not yet been a successful model in the region for extending transit services to other jurisdictions in the region.
- The City would continue to have the major responsibility for transit, even with an expanded service area.

It should be noted that if the current organizational structure is to remain in place and the City chooses to expand services, additional staff are likely needed for WinTran, most specifically an operations manager.

3B. Regional Entity

Transportation District. In Virginia, local governments have a number of different ways to come together to create joint enterprises to perform public functions, including the provision of public transportation. The Transportation District Act of 1964 and the Virginia Code Chapters 15.2-4504-4526 provide the authority for jurisdictions to create a Transportation District.

This statute is summarized as follows:

"Any two or more counties or cities, or combinations thereof, may, in conformance with the procedure set forth herein, or as otherwise may be provided by law, constitute a transportation district… A transportation district may be created by ordinance adopted by the governing body of each participating county and city…Such ordinances shall be filed with the Secretary of the Commonwealth.

Members of transportation district commissions -- This would appear to state that the commission members must be appointed by the governing bodies of the members, but need not be members of the governing bodies (if the commission is one with powers set forth in subsection A of 15.2-4515).

Powers and functions generally - this includes preparation of transportation plans, construction and acquisition of facilities, power to enter into agreements or leases with private companies for operation of facilities, and the ability to contract or agreement within the district (or with adjoining governments) regarding operation of services or facilities.

An example of a Regional Transportation District (RTD) in Virginia is the Potomac and Rappahannock Transportation Commission (PRTC). PRTC is comprised of five jurisdictions: Prince William and Stafford Counties and the Cities of Manassas, Manassas Park and Fredericksburg. PRTC was established in 1986 to help create and oversee the Virginia Railway Express (VRE) commuter rail service and also to assume responsibility for bus service implementation. Currently, PRTC offers a comprehensive network of commuter and local bus services in Prince William County and the Cities of Manassas and Manassas Park, as well as a free ridematching service.

A RTD would be a new legally recognized agency comprised of the City and the County, and have all of the powers necessary to operate a regional transit system. These responsibilities include the power to prepare transportation plans, construct and acquire the transportation facilities included in the transportation plan, operate or contract for the operation of transportation services, enter into contracts and agreements, and administer public transit funds. A RTD would be governed by a Commission, with the composition determined by the participating jurisdictions. This governing Commission would determine an equitable funding allocation among the participating jurisdictions.

A new RTD could negotiate with the City to assume ownership of the existing WinTran system and oversight of the existing personnel.

Advantages

- With the existing Virginia Code already in place, enabling legislation is not required.
- Seamless transit services could be provided.
- Would create an entity completely focused on public transportation, with regional ownership.
- Would raise the profile of transit services and needs throughout the region.

- Would be able to effectively address both urban and non-urban public transportation needs.

Disadvantages

- Creates a new entity that will have a variety of administrative and financial needs that are currently provided by the City (i.e., accounting, legal, cash flow management, human resources, risk management, insurance, etc.)
- The creation of a Transportation District does not provide any new revenue opportunities.
- There would be a considerable amount of time and effort involved in creating a Transportation District.

Regional Transit Authority. A RTA would provide for the widest range of options and would have the fewest limitations. It would be a true regional entity and be a legal entity that would have all of the powers necessary to operate and expand transit service and facilities and provide for the development of new dedicated transportation funding source. The responsibilities of an RTA can be limited to transit, or they could be expanded to other transportation services and facilities.

There is precedent in Virginia for establishment of a RTA. The Northern Virginia and Hampton Roads areas have established authorities, and recently in Williamsburg, James City County, the City of Williamsburg, the College of William and Mary, and the Colonial Williamsburg Foundation partnered to form a RTA. A chief consideration in this decision to was the involvement of private institutions. RTAs are also under consideration in the Charlottesville and Fredericksburg areas.

However, the creation of an RTA would require a strong regional consensus, a local champion to facilitate the process, and subsequent enabling legislation. Many aspects related to formation of an RTA would need to be considered and determined, including the role and structure of a governing board.

Advantages

- Provides the ability to develop a dedicated funding source.
- Seamless transit services could be provided.
- Would create an entity completely focused on public transportation, with regional ownership.
- Would be able to effectively address both urban and non-urban public transportation needs.

Disadvantages

- Requires legislation to be enacted by the Virginia General Assembly.
- Creates a new entity that will have a variety of administrative and financial needs that are currently provided by the City (i.e., accounting, legal, cash flow management, human resources, risk management, insurance, etc.).
- Jurisdictions may feel loss of local autonomy.
- There would be a considerable amount of time and effort involved in creating a RTA.

SUMMARY

This chapter has provided a number of alternatives that the City considered with regard to public transit services over the next six years. Cost neutral projects aimed at improving productivity without incurring significant expenses were highlighted first, in recognition of the difficult economic climate. Expansionary projects were also included, as these may be possible at some point during the six-year planning horizon. Regional issues were also discussed, but do require the cooperation and full interest of neighboring jurisdictions. The service alternatives are also inter-related, as implementing one will likely affect others as well.

Chapter 5

Operations Plan

INTRODUCTION

The WinTran TDP has included four technical memoranda that provided an overview and analysis of public transit services in Winchester, discussed goals, objectives, and standards, analyzed the need for transit services, and developed potential organizational and service alternatives for improving public transportation in the City and the region. The process has been guided primarily by City staff, with input from the Virginia Department of Rail and Public Transportation and area stakeholders. A public meeting was also held to discuss the service alternatives.

This operations plan is organized in five sections:

1. Recommendations focusing on improving the efficiency and effectiveness of the current route network;

2. Potential geographic changes to the current route network within the City of Winchester;

3. Potential geographic expansions of the current route network into surrounding Frederick County;

4. Additional days, hours, and frequency of service; and

5. Improved passenger amenities.

Chapters 6 and 7 provide the companion capital and financial plans to support this operations plan. Some of the recommendations stemmed from this TDP process,

while other recommendations were already planned for implementation during the six-year planning horizon.

RECOMMENDATIONS FOCUSED ON IMPROVING THE EFFICIENCY AND EFFECTIVENESS OF THE CURRENT ROUTE NETWORK

There are a number of relatively cost neutral modifications that could be made to improve the efficiency and effectiveness of the current route network. These concepts are described below and are not listed in any particular order. The focus of this first set of alternatives is to improve services within the City without incurring significant new expenses or expanding beyond the City limits.

Shift Change

The WinTran mid-day driver shift change currently occurs at the City Yards, with the drivers traveling off-route, with passengers on-board, through the back gate of the property. The morning drivers pull their fareboxes and leave the bus and the afternoon drivers take over, replacing the farebox. The afternoon drivers then travel back to downtown. This activity typically results in the buses arriving a little late back downtown.

An alternative to this scenario is to use WinTran's staff car and have the three/four afternoon drivers ride together downtown. The shift change would occur at the transfer location and the morning drivers would travel together in the staff car back to the City Yards. This arrangement is typical for many transit programs. DRPT has indicated that an additional staff car would be an eligible expense to support this type of arrangement.

Cost

While there is a small incremental cost associated with having the drivers use the staff car or a spare vehicle to move the shift change function from the City Yards to Downtown, there is also a corresponding savings associated with not bringing each revenue vehicle into the City Yards. If the City chooses to purchase an additional staff car for this function, this would be an added capital expense and would be eligible for federal and state funding through the annual grant process.

Implementation

This improvement is scheduled for implementation in FY 2012.

Change Route Pairing: Pair Amherst with Apple Blossom

There are ongoing trip needs for Shenandoah University students to get to the Valley Medical Center on Amherst Street. This trip need is not currently met, because the riders have to wait 30 minutes at the transfer location to access the Amherst Route after coming downtown on the Apple Blossom Route. By linking the Apple Blossom Route and the Amherst Route, this trip need can be met without additional cost or changes to the actual routes.

Pairing these two routes together would leave the Northside and South Loudoun routes as pairs, which is also logical, as together they provide north-south service through the City.

Cost

This change is cost-neutral, other than the cost of re-printing schedules.

Implementation

This change is recommended for FY 2012.

Reduce Service on the Amherst Route on Saturdays/Add to Apple Blossom Route

The boarding and alighting counts conducted in November, 2010 showed there were only 15 passenger trips recorded on the Saturday rider count for the Amherst route. The low Saturday ridership on this route is to be expected, as the route travels from downtown along Amherst Street to the Winchester Medical Center, serving several medical offices along the way, which are not likely open on Saturdays, and very few residences or shopping opportunities.

The focus of this improvement is to reduce the number of trips for the Amherst Route on Saturdays, and add these trips to the Apple Blossom Route. This alternative will work well if the two routes are interlined, as suggested in the previous recommendation. Under this proposal, the Amherst Route would run at 9:00 a.m., noon, and at 4:00 p.m. so that the Winchester Medical Center continues to be transit-accessible on Saturdays but reflecting the lower demand for service. The runs that currently operate at 10:00 a.m., 11:00 a.m., 1:00 p.m., 2:00 p.m., and 3:00 p.m. would

instead serve the Apple Blossom Route (WinTran's busiest route), which would then enjoy 30-minute headways for part of the day.

Cost

This change is cost-neutral, other than the cost of re-printing schedules.

Implementation

Reducing Saturday service on the Amherst route and adding it to the Apple Blossom Route is scheduled for FY 2012. WinTran should hold a public hearing for this change as it will reduce service on Saturdays for the Amherst Route.

Close the Mid-day Gap for the Amherst Route

Currently the Amherst Route does not operate between 12:30 p.m. and 1:30 p.m. At the public meeting a rider mentioned that this was inconvenient, particularly because this time frame is often when people have completed their morning medical appointments along the route, and are ready to return home. This improvement recommends closing the mid-day gap and maintaining hourly headways Monday-Friday.

Cost

This improvement will cost about $6,170 annually, based on 30 additional minutes of revenue service each weekday, 255 days, at a cost of $48.39 per revenue service hour.

Implementation

It is recommended that this improvement be implemented in FY 2012, in conjunction with the other Amherst Route recommendations.

Re-configure Trolley Route

Historical WinTran data, as well as boarding and alighting data, indicate that the Trolley route is the lowest performing route in the network. The route is a large loop that serves many areas already served by other routes. The focus of the route re-configuration is to maintain the primary stops served by the route, but provide service in a more direct and convenient fashion.

The proposal is to re-brand the route as the Mid-Town Trolley and run the following route:

Outbound:

- Downtown Transfer Location
- South on Valley Avenue
- West on Jubal Early
- South on Harvest
- East on Cedar Creek
- North on Valley Ave.
- East on Jubal Early, providing service to a currently un-served segment
- South on Pleasant Valley to serve Walmart , Target, and the Mall

Inbound:

- Target, Walmart, and the Mall
- West on Jubal Early
- South on Harvest
- East on Cedar Creek
- North on Valley Avenue back to Downtown

The proposed Mid-Town Trolley Route is shown in Figure 5-1 and is 6.18 miles one-way, or 13.60 miles round trip. With this route length, the route will still provide one-hour headways, but will provide bi-directional rather than loop service. The linear service is more convenient for riders, as they do not have to ride an entire loop to complete their trips. Direct service will be provided between the housing areas off of Harvest Drive to the shopping areas along Pleasant Valley Road and between these same housing areas and downtown Winchester. This change does eliminate the segment on Tevis Road.

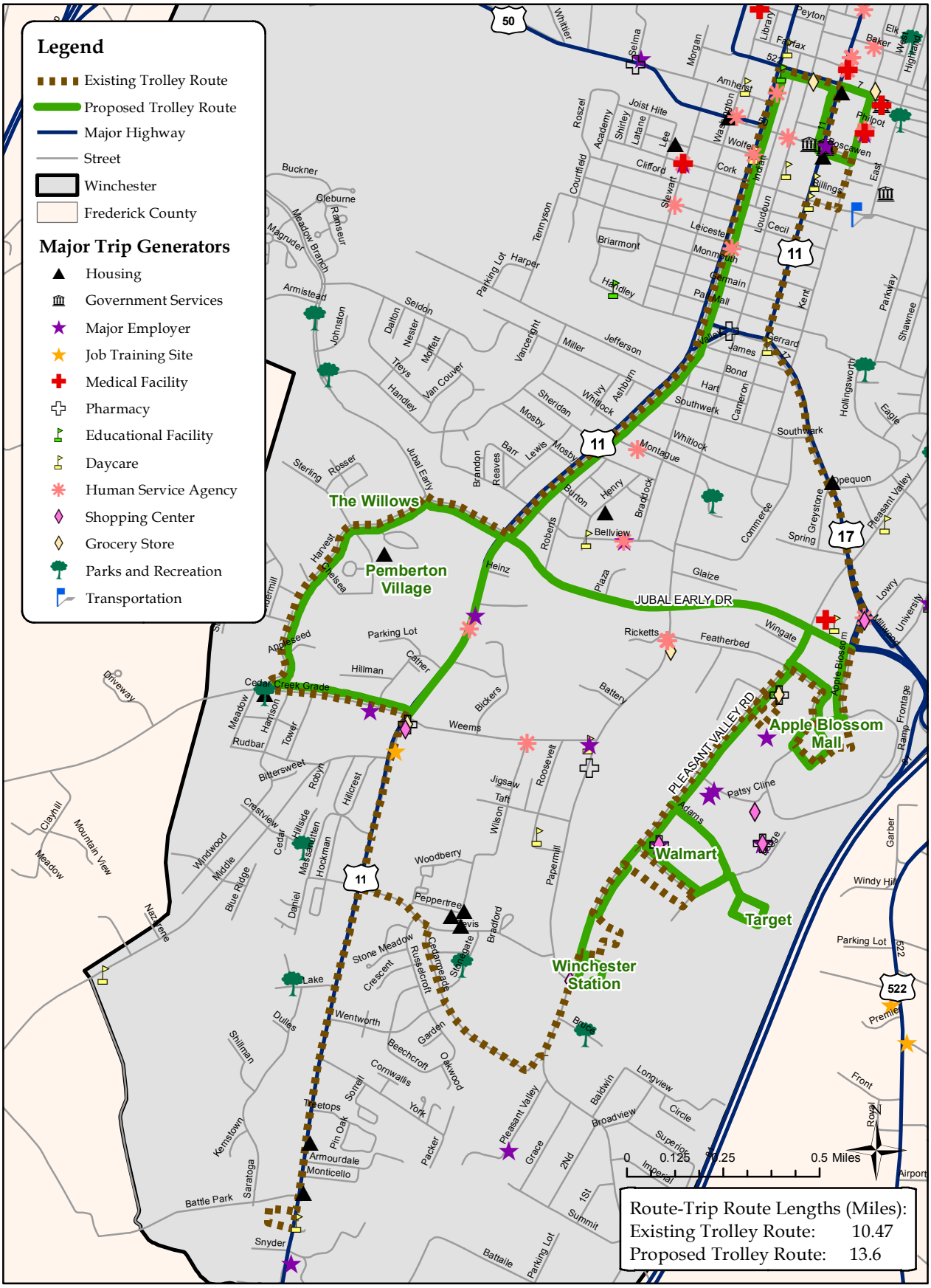
Cost

This change is cost-neutral, other than the cost of re-printing schedules.

Implementation

The Trolley route is scheduled to be adjusted in FY 2012.

Figure 5-1: Proposed Mid-Town Trolley Route



GEOGRAPHIC CHANGES TO THE CURRENT ROUTE NETWORK PRIMARILY WITHIN THE CITY OF WINCHESTER

Included in this category of service improvements are potential geographic changes to the route network that focus on areas primarily contained within the City of Winchester.

Split the Northside Route

The Northside route serves a number of high-need housing areas, as well as the commercial corridors of N. Loudoun Street and US522/North Frederick Ave. The route currently has a split, serving three stops on Fort Collier Road, including the Salvation Army, on four designated trips each day. The human service community has requested additional trips for the Salvation Army, but the split schedule does not allow enough time for this deviation on each run.

The proposal calls for the following changes:

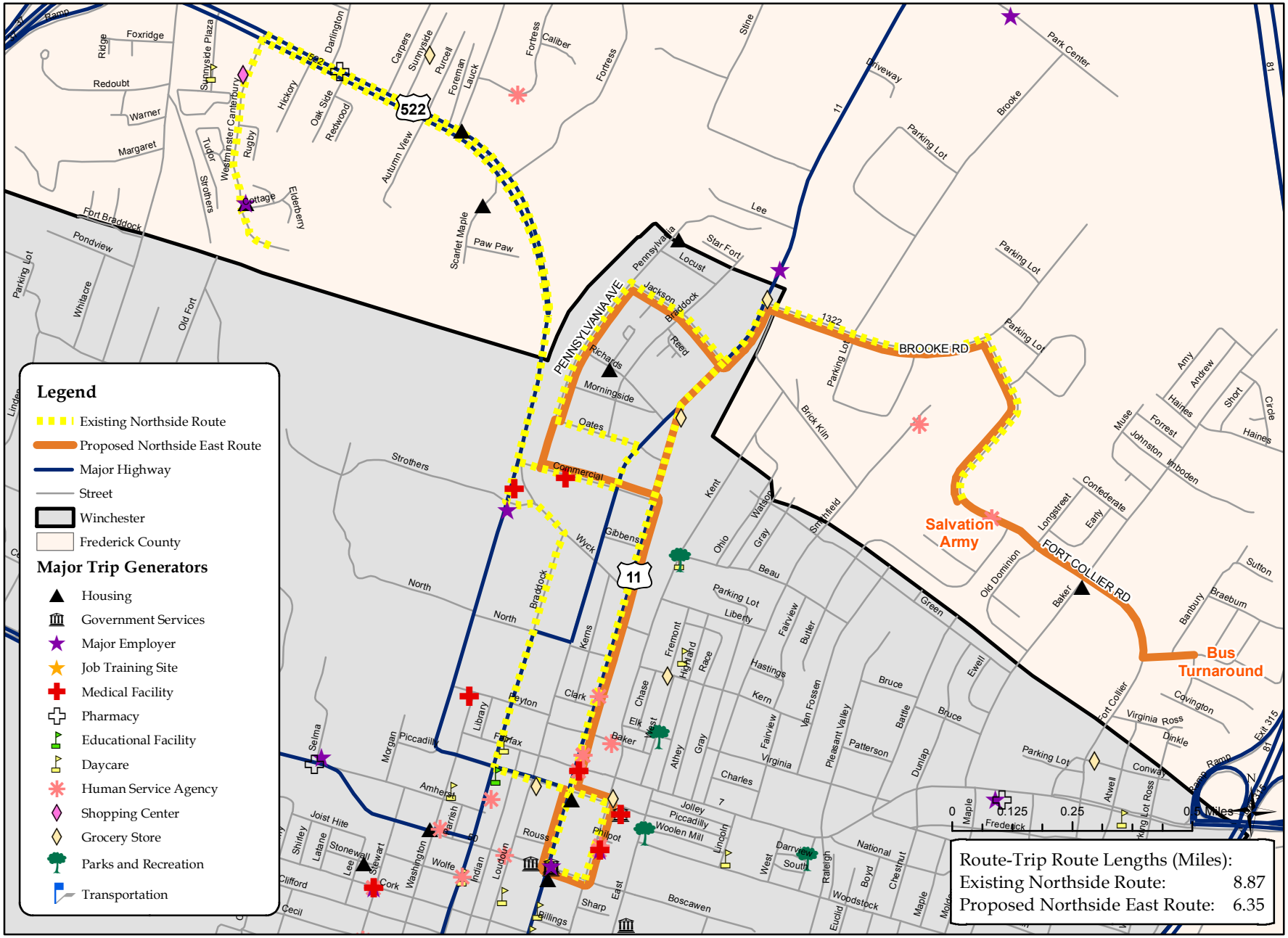
- A Northside West route – this route would be the current Northside Route without the deviation to the Salvation Army. This route would be paired with the South Loudoun Route.

- The Northside West route could also extend a block to serve the Martin's Food store on Rivendell Court.

- A Northside East route - this route would serve the North Loudoun Street stops, then would serve Collier Road to the Salvation Army and then on further to the large townhouse community adjacent to Stratford Drive, where there is a bus turnaround. After serving Collier Road, the route would serve the Commercial Street/Pennsylvania Avenue area before returning to downtown. Figure 5-2 provides a map of the proposed Northside East Route.

The proposal highlighted in Chapter 4 called for both routes to run hourly, which would incur significant expense and require a second vehicle. For the short-term, WinTran has decided to try the Northside East and Northside West routes using an alternating pattern, which will result in the end points being served on every other run (i.e., once every two hours). WinTran plans to consult with the Salvation Army to determine the most convenient trip times for the Northside East segment of the route.

Figure 5-2: Proposed Northside East Route



Cost

The short-term solution (i.e. alternating Northside East and Northside West) is cost neutral, other than the cost to change the public information.

Implementation

This change is scheduled to be implemented in FY 2012.

Adjust the South Loudoun Route

The South Loudoun Route is the longest in the route network, requiring an operating speed of 18.4 miles per hour, which is well above the system mean of 13.15 miles per hour. The boarding and alighting counts, as well as anecdotal information provided by staff, indicate that there is not any ridership on the loop through the industrial park (Battaile Road/Shawnee Drive loop). It is proposed that this loop be eliminated, with the southern terminus of the route changed to NW Works, located on Shawnee drive. This route arrangement would preserve service to the multi-family housing located along Shawnee Drive, as well as service to NW Works, but would eliminate the non-performing large loop through the industrial park and reduce the overall mileage of the route. A map of this proposed route configuration is provided in Figure 5-3.

Cost

This proposal offers minor reductions in mileage-related expenses. There would not be a major cost savings, as the route timing would remain similar.

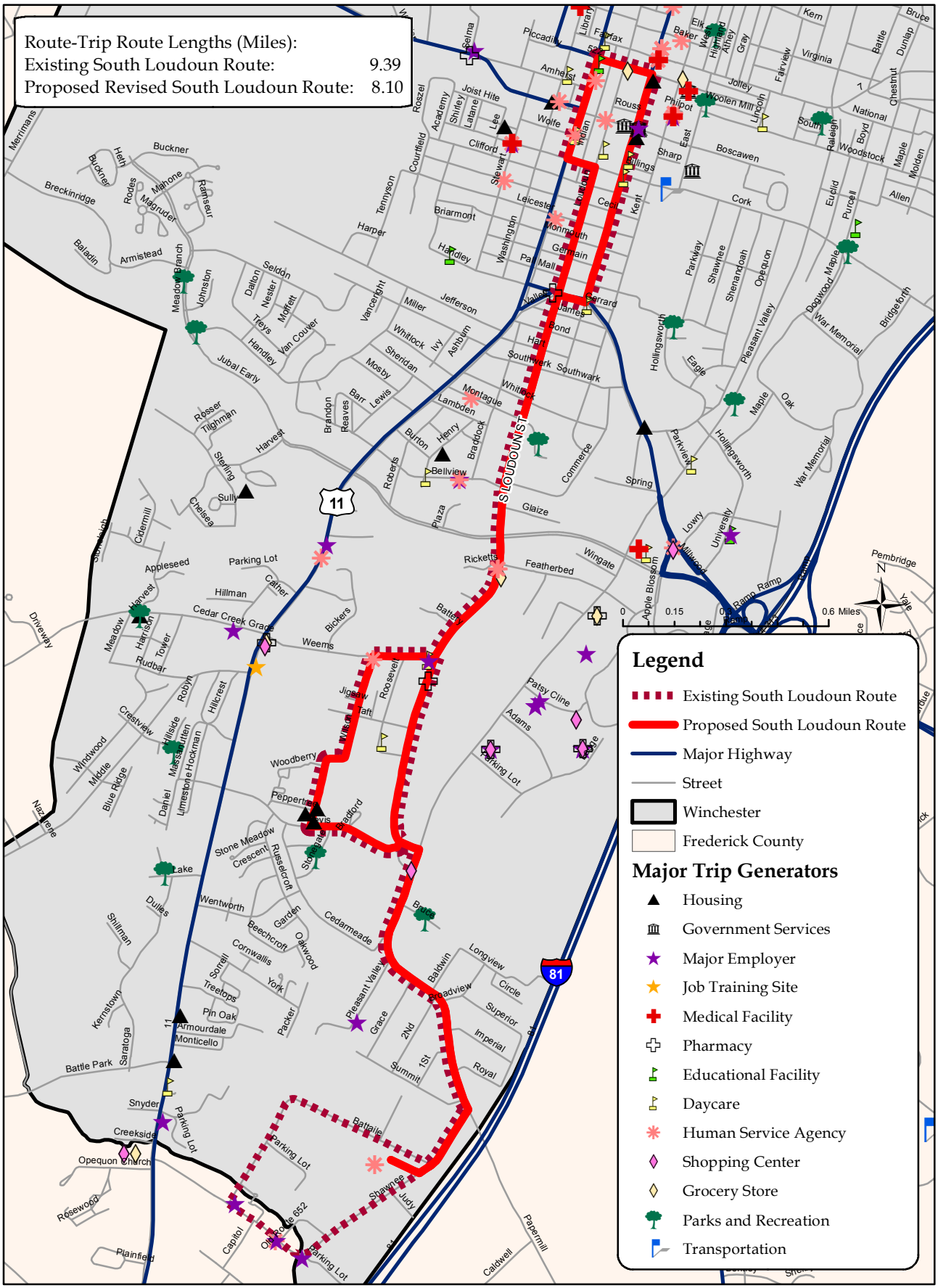
Implementation

This change is scheduled to be implemented in FY 2012.

Downtown Trolley Circulator

There has been interest expressed over the last several years by the Old Town Development Board and the Winchester-Frederick County Visitor's Center to operate a tourist-oriented trolley route, aimed at transporting visitors from the Visitor's Center to the Old Town Pedestrian Mall and to the Museum of the Shenandoah Valley. This proposal takes that concept and adds a downtown parking circulator function to it. The concept is to connect the downtown parking garages to the Old Town Pedestrian Mall and then travel to the Museum of the Shenandoah Valley, back downtown to the

Figure 5-3: Proposed Revised South Loudoun Route



parking garages, and then to the Visitor's Center. The route would then do the same in reverse, bringing people from the Visitor's Center to downtown and then on to the Museum of the Shenandoah Valley. This route would connect parking and major points of interest within the City, allowing people to park just one time to visit several attractions. The latest round of discussions regarding this potential route suggested that it operate Monday-Saturday from April through October, from 10:00 a.m. to 4:00 p.m. This route is shown in Figure 5-4.

Cost

If this service is operated Monday-Saturday, from April through October, the annual revenue service hours would be 1,116, resulting in an annual operating cost of about $54,000. WinTran has a trolley that could be used for the service. Revenue to fund this service could come from parking fees, the Old Town Development Board, The Visitor's Center, and/or a demonstration grant from VDRPT.

Implementation

For planning purposes, the Downtown Circulator is recommended for implementation in FY 2014. If there is funding for this route ahead of this schedule, it could be implemented sooner, as WinTran does have a vehicle that could be used.

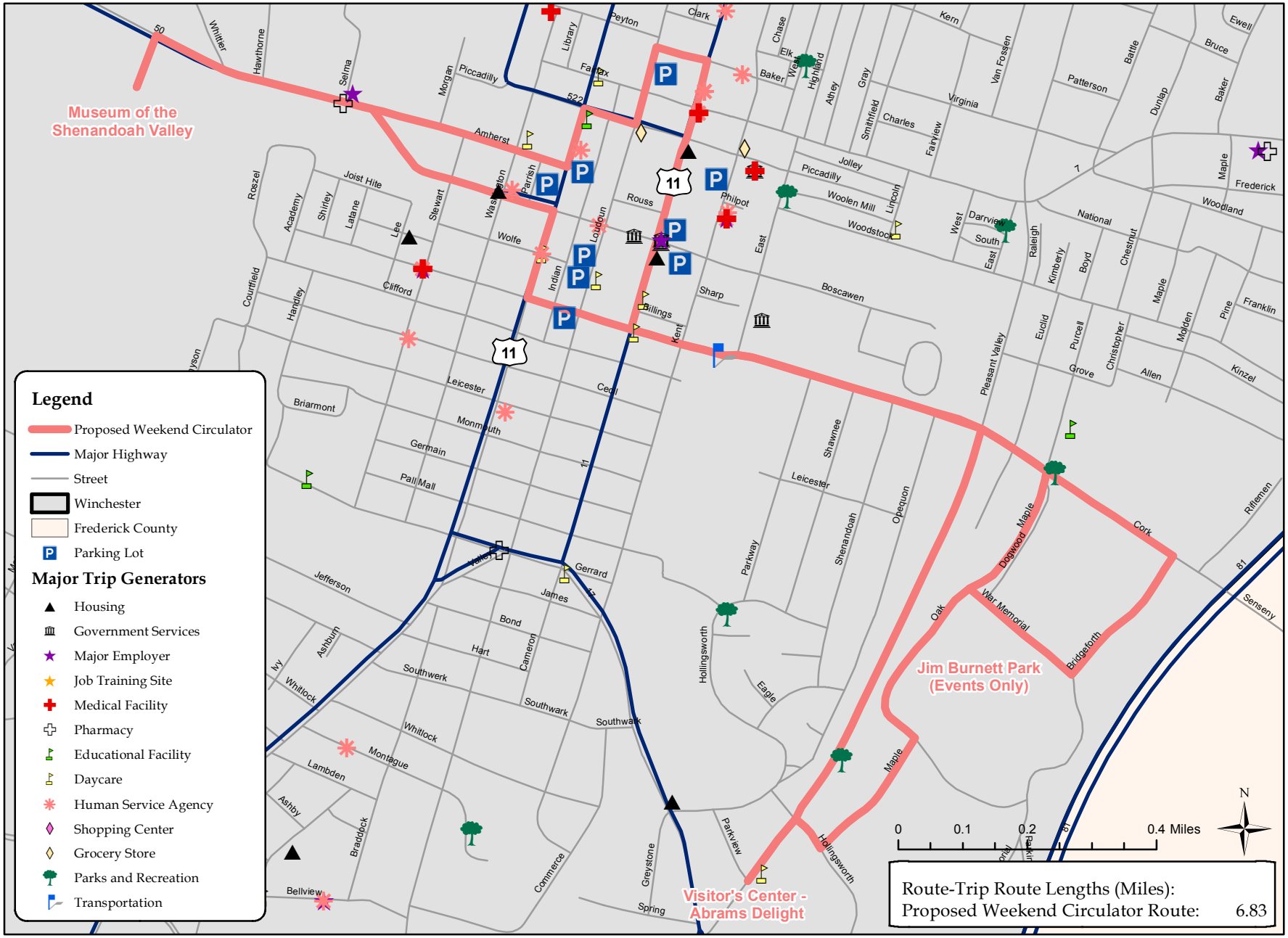
POTENTIAL GEOGRAPHIC EXPANSIONS OF THE CURRENT ROUTE NETWORK INTO SURROUNDING FREDERICK COUNTY

The concepts articulated in this section of the plan were taken largely from the 2009 WinFred Transit Services Plan. These projects are all still desired by the community and have not been implemented. The top five geographic locations listed by riders who completed the on-board survey were all outside of the City, with Walmart, Martin's, and "outside Winchester" the top three. It should be noted that implementing additional transit services outside of the City will require a financial agreement with the County so that the costs are shared equitably.

Extend Fixed-Route Transit Services along Major Corridors into Frederick County

A major finding from the WinFred Transit Services Plan (2009) and from the current TDP survey was that there are several important transit origins and destinations that are relatively close to the existing fixed-route transit network, but are not served. These areas typically include the major travel corridors through the City of Winchester that extend into the County. In looking at these areas, the following areas should be considered for service extensions:

Figure 5-4: Proposed Downtown Trolley Circulator Route



Route 7/Berryville Avenue

The demographic analysis conducted for the WinFred Transit Services Plan showed a geographic area of high transit need located East of I-81 and south of Route 7. This area includes a number of townhomes and apartments, including Park View Apartments, Park Place, Brookland Manor, Windstone Townhomes, Ash Hollow Estates, Pioneer Heights, and others. Also in the corridor is the Regency Lakes development, which is a high density modular home community. The Gateway Center, which includes a Martin's grocery store and several other neighborhood retail shops, is also located in this corridor.

One way to serve this area would be to extend the Berryville Avenue route to make a short loop, following Valley Mill Road and then turning left into Greenwood, and left back onto Route 7. The bus could then pull into the Regency Lakes development and stop at the community center, than back out to Route 7 and serve the Gateway Center. The route would then come back into Winchester as it does currently.

Another consideration for this route is to use it to serve the Salvation Army and the Huntington Manor Townhouse community adjacent to Fort Collier Road (close to Route 7). Figure 5-5 shows these two options, which were included as alternatives in the WinFred Transit Services Plan.

In making these route extensions, the Berryville Avenue route will almost double in length, making it a stand-alone route. The extended route would provide transit service to many high-need, high density housing areas that do not currently have transit service, as well as providing service to the Gateway Center, which was requested on the survey and serves a number of local shopping needs (and employs people as well).

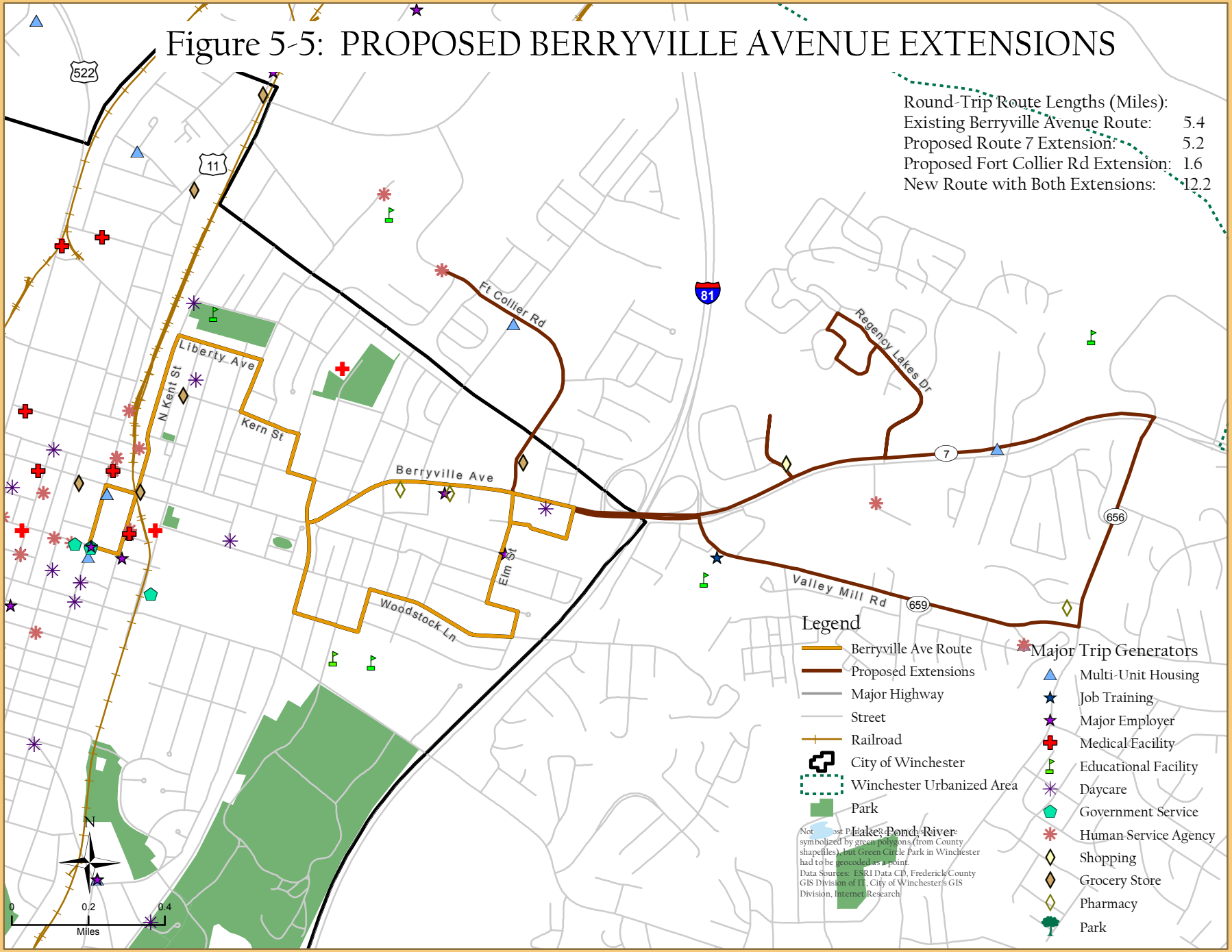
Cost

Extending this route will cost about $98,500 a year. This is based on adding 2,035 operating hours to the route at $48.39 per operating hour. Another vehicle will also be required ($73,500).

Implementation

It is likely that the extensions into Frederick County cannot be implemented until there is a financial agreement between the City and the County to provide the local share for the route extension. This route is within the Winchester-Frederick County MPO area, so it is eligible for funding assistance through the Federal Section 5307 program. For planning purposes we have included this extension in FY 2014.

Figure 5-5: PROPOSED BERRYVILLE AVENUE EXTENSIONS



Extend the Amherst Route to Walmart

Many of the survey respondents (both for the current TDP survey and for the 2009 WinFred Transit Services Plan) indicated that they would like to have service to the new Walmart on Route 50 West (just to the west of the intersection of Route 50 and Route 37). This service could be accomplished by extending the Amherst route by 1.9 miles round trip, or about a 34% increase from the current route length of 5.6 miles. Figure 5-6 provides a map of this extension.

Cost

This extension would cost about $30,000 annually, based on the mileage increase of 34%.

Implementation

It is likely that the extensions into Frederick County cannot be implemented until there is a financial agreement between the City and the County to provide the local share for the route extension. This route is within the Winchester-Frederick County MPO area, so it is eligible for funding assistance through the Federal Section 5307 program. For planning purposes we have included this extension in FY 2014.

Extend Service to the Millwood Ave/522 South Corridor

There are a number of significant transit destinations that are located in this corridor, including a number of hotels and retail centers (Delco Plaza), the Virginia Employment Commission, counseling services, and the Airport Industrial Park. The Apple Blossom Mall route could be extended to service this area. The extension is shown in Figure 5-7 and is 4.7 miles in length, making the entire route 11.6 miles round trip. This would result in the route taking a full hour to complete, rather than the current 30 minutes.

Cost

This extension (using hours as benchmark) will cost about $98,500 per year to operate and will require an additional vehicle ($73,500).

Implementation

It is likely that the extensions into Frederick County cannot be implemented until there is a financial agreement between the City and the County to provide the local

Figure 5-6: PROPOSED AMHERST ROUTE EXTENSION

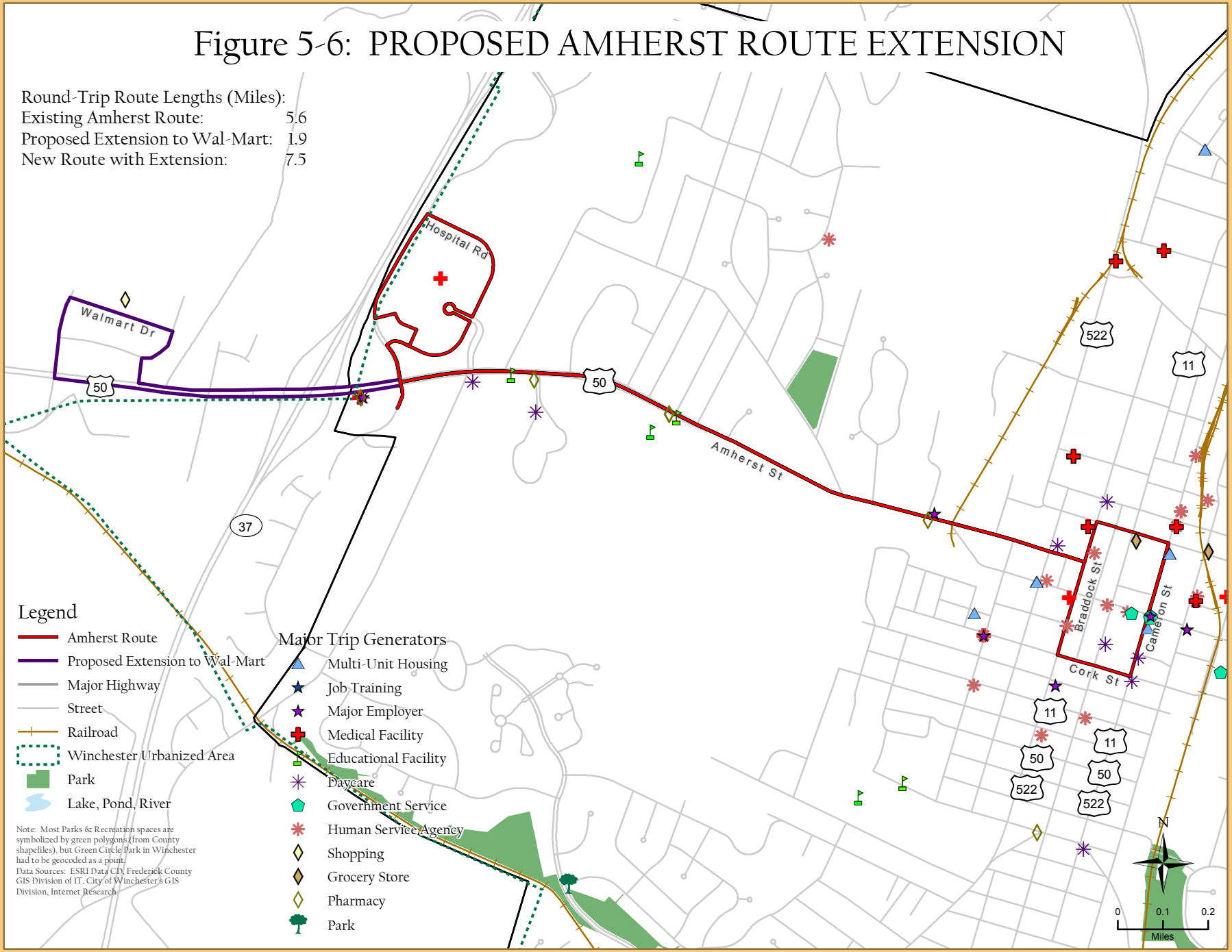
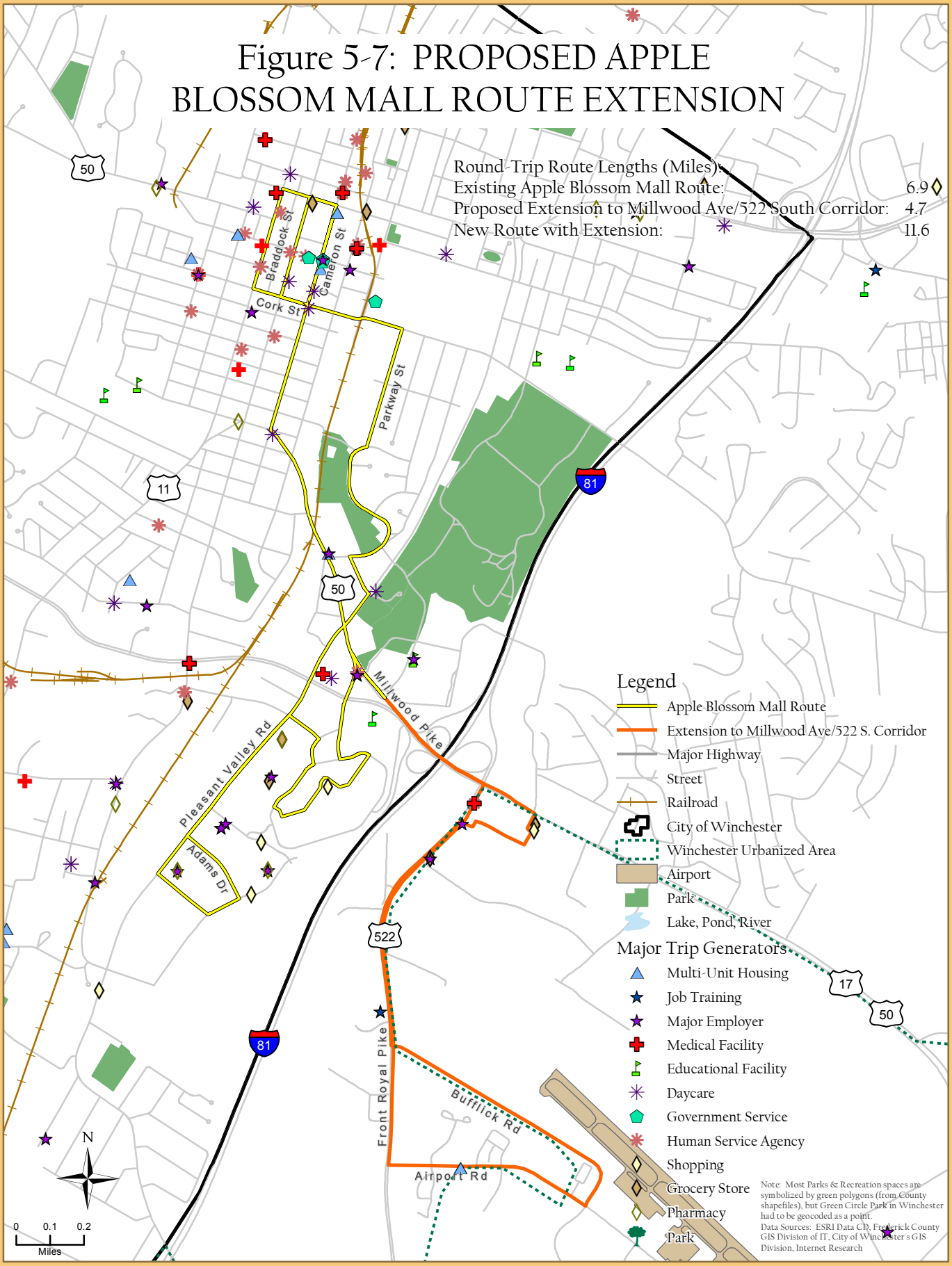


Figure 5-7: PROPOSED APPLE BLOSSOM MALL ROUTE EXTENSION



share for the route extension. This route is within the Winchester-Frederick County MPO area, so it is eligible for funding assistance through the Federal Section 5307 program. For planning purposes we have included this extension in FY 2014.

Extend Northside East Route to Rutherford Crossing

There is another newly developing area just north of Winchester along Route 11. A new shopping center has recently opened with a Target, a Lowe's, and several smaller shops. An office building with major federal employment is also located adjacent to the shopping center. The closest current Winchester Transit route to Rutherford Crossing is the Northside Route. The extension to Rutherford Crossing would involve an additional 4.1 miles, bringing the Northside Route to 12.8 miles total. There are also a few employers in the Route 11 North Corridor in between the current route terminus and the new shopping center. Figure 5-8 provides a map of this route.

Cost

This extension (using hours as benchmark) will cost about $98,500 per year, including the new longer operating hours and will require another vehicle ($73,500).

Implementation

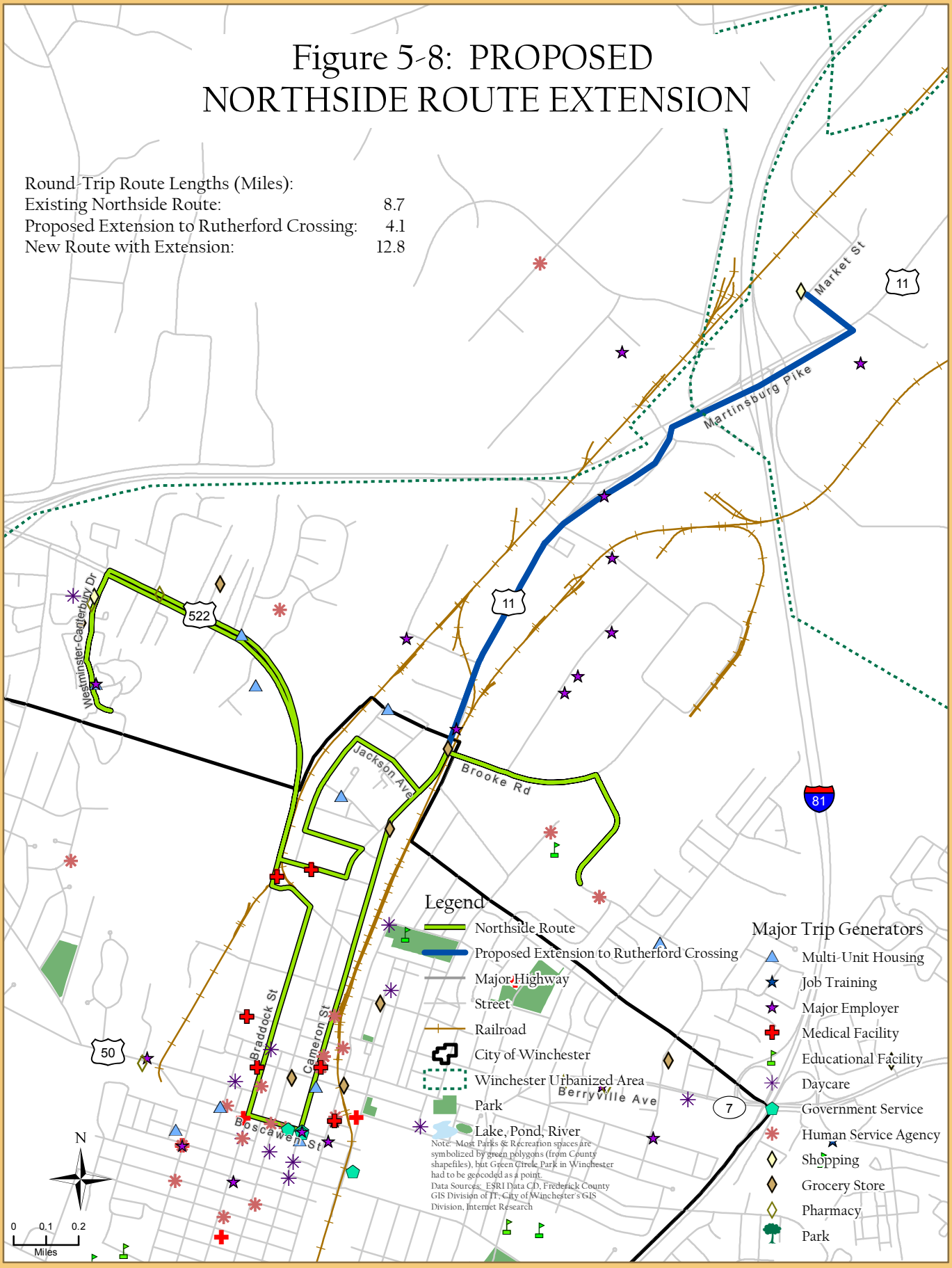
It is likely that the extensions into Frederick County cannot be implemented until there is a financial agreement between the City and the County to provide the local share for the route extension. For planning purposes this project is included in FY 2014.

Provide Corridor Service on Route 11 - Local

The need for transit services between Winchester and Stephens City, including serving the DMV on Route 11, and the need to connect to Lord Fairfax Community College (LFCC) in Middletown were articulated by stakeholders for this TDP as well as during the WinFred Transit Service Planning process (2009). This corridor was served by a transit demonstration project in 2004-2007 and ridership did not meet expectations, however, with more collaborative route and schedule planning (specifically with stakeholders from Lord Fairfax Community College), and shared financing, this corridor should be looked at again for service. Additional research concerning the specific route and schedule of the demonstration project is needed to ensure that past errors are not repeated.

Stephens City also exhibits high relative transit needs, specifically to the north of Route 277 and to the east of Route 11 and Route 81. A short diversion to serve local Stephens City needs should also be considered for this route.

Figure 5-8: PROPOSED NORTHSIDE ROUTE EXTENSION



When Winchester Transit desires to move forward with this corridor route there will need to be an outreach process to other stakeholders in order to develop an equitable financing arrangement. It is likely that this route would be eligible for JARC funding, as it would provide transportation service for people to access job training opportunities at LFCC. JARC funding for operating projects provides up to 50% of the net operating deficit, while capital items are funded up to 80% federal and 10% state. The remaining balances would need to be funded locally. Another option for this route is to approach Well Tran, the transportation service operated by the Shenandoah Area Agency on Aging, to see if that agency would be interested in operating the service.

Cost

A 12-hour service span Monday to Friday and an eight hour service span on Saturdays, would cost about $171,700 annually (assuming one vehicle is devoted to the service). If the route operates on a deviated schedule, there would not be an additional expense for ADA paratransit. If the route is fixed, there would also be a need to provide ADA paratransit services within ¾ mile of the route for people with disabilities. A vehicle would also need to be purchased for this route (about $73,500).

Implementation

As with the other transit projects that include service outside of the City, this option will also require funding assistance from other partners. For planning purposes, this project is included in FY 2015.

ADDITIONAL DAYS, HOURS, AND FREQUENCY OF SERVICE

Riders have expressed interest in later hours of service, as well as service on Sundays and more frequent service. WinTran extended the service day in 2009 so that the routes operate until 8:00 p.m., Monday through Friday. The routes had previously terminated at 6:00 p.m. Evening ridership thus far does not support a later extension for the weekdays; however, there is demand for later hours on Saturdays. Currently the routes only operate until 5:00 p.m. on Saturdays, which makes it difficult for riders to complete afternoon errands and shopping.

For this TDP planning period WinTran has decided to extend the hours of service on Saturdays until 8:00 p.m. This extension was requested by riders and is relatively low-cost.

Improving the frequency of service remains a more long-term goal, as the current ridership levels do not support 30-minute frequency for most of the routes. As described in an earlier section of the plan, the Apple Blossom route will have 30-minute frequencies for a large portion of the service day on Saturdays.

Cost

Extending service by three hours on Saturdays will result in about 624 additional annual revenue service hours (4 vehicles, 3 hours each, 52 Saturdays), which will cost about $30,000 annually. No additional vehicles will be needed.

Implementation

This improvement is scheduled for implementation in FY 2014.

IMPROVED PASSENGER AMENITIES AND INFRASTRUCTURE

Passenger Amenities

The fourth most frequently requested improvement from the TDP survey was for additional shelters and benches. As noted in Chapter 1, WinTran has recently received four additional shelters and is in the process of placing them throughout the community. For the six-year TDP planning horizon, it is proposed that WinTran add two shelters per year to the system, which would total 12 additional shelters, or two per route.

Bus stop signs are also important passenger information and marketing amenities. While on site the study team noticed that the new bus stops signs that have been installed as part of the larger streetscape projects are very small and have no identifying information. City staff indicated that they have been awarded stimulus funds to improve bus stop information. The funds will be used to augment the streetscape signs with additional signage that provides specific, color-coded route information. WinTran also plans to provide an information kiosk at Walmart.

Cost

Shelters cost about $10,000 per shelter installed and bus stop signs are about $100 dollars per sign. It should be noted that both of these items are capital items and are typically eligible for federal/state funding assistance of up to 80% federal and 10% state, leaving 10% of the cost to be funded locally. Adding 12 shelters will cost about $120,000, $12,000 of which would be local funding.

The new informational bus stop signs are not included in the TDP budget, as they have already been funded with stimulus funds.

Infrastructure

As documented in Chapter 1, the City is planning on constructing a new administrative building for WinTran. The building will be located adjacent to the new vehicle storage facility at City Yards. This building is scheduled to be constructed in FY 2013.

Technology

While technological improvements were not specifically discussed during the TDP process, it is likely that WinTran will wish to provide real-time transit schedule information for its passengers at some point during the six-year planning horizon. Real-time schedule information is an electronic system by which riders can find out the exact location of the bus they are waiting for, via an electronic sign, a computer, or a cell phone. These systems use Automatic Vehicle Location (AVL) and Global Positioning Satellite (GPS) technologies. For planning purposes this technology is included for FY 2014.

ORGANIZATIONAL RECOMMENDATIONS

Organizational recommendations include proposals for potential changes that affect the way that transit is guided, administered, and managed in the City. There are three potential changes that fall under this category that are relevant for the City of Winchester to consider. The first three proposals involve only the City, while the fourth discusses the idea of a regional agreement or entity that may be necessary to implement services that travel outside of the City of Winchester.

Implement Transit Advisory Committee

Many transit agencies have found that it is helpful for them to have a transit advisory committee. A transit advisory committee is comprised of community stakeholders who have an interest in preserving and enhancing transit in the community. Typical transit advisory committee members would include representatives from the following types of organizations:

- Department of Social Services
- Health Department

- Human Service Agencies
- Department of Aging/Senior Services
- Metropolitan Planning Organization/Rural Planning Organization
- Chamber of Commerce
- Community College/University
- Disability advocates
- City/County Planning Department
- Elected Official Liaison

The role of a transit advisory committee is to help the transit program better meet mobility needs in the community by serving as a link between the citizens served by the various entities and public transportation. A transit advisory committee is a good community outreach tool for transit programs, as having an ongoing dialogue with stakeholders allows for a greater understanding for transit staff of transit needs in the community, as well as greater understanding by the community of the various constraints faced by the transit program. TACs also typically serve in an advisory capacity for TDPs and other transit initiatives.

Cost

The expenses associated with forming a transit advisory committee are modest and include the cost associated with the staff time spent planning and organizing the meetings, as well as any printing and presentation materials needed for the meetings.

Implementation

It is recommended that WinTran implement a TAC in FY 2012.

Explore Partnerships with Shenandoah University

Currently WinTran serves the periphery of Shenandoah University, providing service on the Apple Blossom Route. This recommendation suggests that WinTran take a more pro-active role in engaging the University to help determine if there are additional services that WinTran could provide for the University and further if the University could subsidize any additional services provided. The recommendation to work together does not involve additional costs, though any services resulting from the partnership would.

Operations Manager

WinTran currently operates with a Transit Director, an Administrative Clerk, and the drivers. There is not a staff person whose role it is to make sure that transit

operations are running smoothly each day. This proposal recommends adding a staff position whose job it would be to oversee the actual operations of the system. Duties would include driver hiring, training, scheduling, oversight, safety, serving as liaison to the City's maintenance shop, and serving as the driver of last resort.

This position would provide additional oversight of the operation, including better coverage for when drivers are sick or incidents occur, would enable the implementation of more extensive driver training programs, and would free up the Director's time to work on planning, outreach, and marketing initiatives.

Cost

The salary range for a transit operations manager for a small transit agency would likely range between $ 35,000 and $ 45,000 annually, plus fringe benefits (48%).

Implementation

The addition of an Operations Manager is included in the FY 2014 budget for WinTran.

Regional Issues

If regional routes are to be implemented in the Winchester area, there will need to be a mechanism in place to finance and operate these services. Chapter 4 of this TDP highlighted the two primary ways that this could occur, which are 1) Contractual Agreements; or 2) The creation of a regional entity.

The simplest organizational option for expanding service beyond the City is to maintain the operation of transit services by the City of Winchester through the current structure and grow the system via contractual agreements. This alternative would be the simplest by maintaining the existing staff and current vehicle fleet, with expansion as needed based on the service improvements chosen.

The existing structure could serve as the foundation for a regional transit system, with system expansions taking place through contractual agreements with Frederick County and potentially Lord Fairfax Community College and Shenandoah University. The City would remain the operator, with additional funds provided by Frederick County or other partners to serve areas outside of the City. This strategy would provide customers with seamless regional services, and offer access to the many destinations and needed services in the area.

Chapter 6

Capital Improvement Plan

INTRODUCTION

This section of the TDP describes the major capital projects (vehicles, facilities, and equipment) needed to support the provision of public transportation in the City of Winchester for the six-year period covered by this TDP.

VEHICLE REPLACEMENT AND EXPANSION PROGRAM

As described in Chapter 1, WinTran owns 12 vehicles; 7 of which are light duty transit buses; two of which are trolley replica vehicles; two of which are vans; and one of which is a sedan. The revenue service vehicles range in model years from 2004 to 2008.

WinTran currently has a generous spare ratio for the fixed routes, with six vehicles available and a three-vehicle peak requirement. This spare ratio will be reduced by retiring one of the 2004 vehicles rather than replacing it. In the later years of the plan there may be a need for vehicle expansions, and these are included for FY 2014, 2015, 2016, and 2017.

The vehicle inventory, with the estimated replacement years is provided as Table 6-1. The full vehicle replacement and expansion plan, including the vehicles needed to implement the projects in this TDP is provided as Table 6-2. As shown in the table, the WinTran fleet is projected to grow from the current 12 vehicles to 18 vehicles by 2017. The companion financial plan to support the vehicle replacement and expansion plan is provided in Chapter 7 of the TDP.

Table 6-1: WinTran Vehicle Inventory and Replacement Schedule

Local Fleet Number	Model Year	Manufacturer	Model and Type	Seating Capacity	Wheel-chair Stations	Use	Condition	Mileage January 2011	Estimated Replacement Year
321	2008	Chevrolet	Supreme Bus	14		Paratransit	Excellent	7,013	2015
318	2008	Chevrolet	Supreme Bus C5500	24	2	Fixed-Route	Good	74,560	2015
319	2008	Chevrolet	Supreme Bus C5500	24	2	Fixed-Route	Good	69,997	2015
320	2008	Chevrolet	Supreme Bus C5500	24	2	Fixed-Route	Good	66,948	2015
300	2003	Chevrolet	Malibu Sedan	5	0	Admin.	Good	31,234	2013
325	2005	Freightliner	Classic Am. Trolley	30	2	FR Trolley	Good	43,320	2013
326	2005	Freightliner	Classic Am. Trolley	30	2	FR Trolley	Good	53,923	2013
323	2004	Chevrolet	Supreme Bus C5500	24	2	FR Spare	Fair	171,273	2012
324	2004	Chevrolet	Supreme Bus C5500	24	2	FR Spare	Fair	173,328	Retire
322	2004	Chevrolet	Supreme Bus C5500	24	2	FR Spare	Fair	169,545	2012
301	2006	Ford	Econoline Van	9	2	Paratransit	Good	68,737	2012
302	2006	Ford	Econoline Van	9	2	Paratransit	Good	53,678	2012

Table 6-2
Winchester Transit Vehicle Replacement and Expansion Program

Vehicle Type	Useful Life	Number in Current Fleet	FY 2012			FY 2013		FY 2014		FY 2015		FY 2016		FY 2017		Number in FY 2017 Fleet
			Repl.	Ret.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	Repl.	Exp.	
Light Transit Vehicles	7 yrs./130k	7	2	1	0	0	0	0	3	4	1	0	1	0	1	12
Trolley Buses	7 yrs./130k	2	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Vans	5 yrs./100k	2	2	0	0	0	0	0	1	0	0	0	0	0	0	3
Sedans		1	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Number Vehicles Procured			4		0	3	0	0	4	4	1	0	1	0	1	
Fleet Size		12														18

FACILITIES

WinTran will be working on several facility projects over the six-year planning period, including the following:

- Passenger waiting shelters,
- Improved passenger information, and
- New administrative building.

These facility projects have been included in the financial plan.

TECHNOLOGY

While technological improvements were not specifically discussed during the TDP process, it is likely that WinTran will wish to provide real-time transit schedule information for its passengers at some point during the six-year planning horizon. Real-time schedule information is an electronic system by which riders can find out the exact location of the bus they are waiting for, via an electronic sign, a computer, or a cell phone. These systems use Automatic Vehicle Location and Global Positioning Satellite technologies. For planning purposes this technology is included for FY 2014.

Chapter 7

Financial Plan

INTRODUCTION

This chapter provides a financial plan for funding existing and proposed transit services in the City of Winchester for the six-year planning period. It should be noted that there are currently a number of unknown factors that will likely affect transit finance in the City over the course of this planning period, including the reauthorization of SAFETEA-LU and the future economic condition of the City and the Commonwealth of Virginia. The budgets were constructed with the information that is currently available, including the VDRPT Statewide Transportation Improvement Program, the VDRPT FY 2009-2013 Transportation Improvement Program, and the City of Winchester's FY 2012 approved budget.

OPERATING EXPENSES AND FUNDING SOURCES

Table 7-1 provides the financial plan for transit operations for WinTran, including operating, maintenance, and administrative expenses. The six-year plan includes the current base service and then adds the projects discussed in the Operations Plan (Chapter 5). Both constrained and unconstrained projects are included.

As the table indicates, the annual operating expenses for WinTran are projected to grow from about $850,000 to $1.7 million over the six-year planning period, including inflation and expanded services. This level of growth is higher than what WinTran has experience in recent years, though it is consistent with the City's Comprehensive Plan.

Pending the reauthorization of SAFETEA-LU, we do not know what the level of federal transit funds will be, though it should be noted that they have generally risen with each transportation funding reauthorization. These funds are shown to increase with inflation, along with the expenses. A 3% annual rate of inflation has been applied, with an additional increase to support the fixed-route extensions in the urbanized area.

Table 7-1: Winchester Transit TDP Financial Plan for Operations

Constrained and Unconstrained Projects	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Current Annual Service Hours	17,422	17,422	17,422	17,422	17,422	17,422
Close Mid-day Gap on Amherst Route	128	128	128	128	128	128
Later Hours on Saturdays			624	624	624	624
Downtown Trolley Circulator			1,116	1,116	1,116	1,116
Extensions into Frederick County:						
Berryville Avenue Route			2,035	2,035	2,035	2,035
Amherst Route to Walmart			611	611	611	611
Millwood Ave/522 South			2,035	2,035	2,035	2,035
Northside East to Rutherford Crossing			2,035	2,035	2,035	2,035
Corridor Service on Route 11 to Middletown				3,132	3,132	3,132
Total Transit Service Hours	**17,550**	**17,550**	**26,006**	**29,138**	**29,138**	**29,138**
Projected Operating Expenses						
Cost Per Revenue Hour- Directly Operated Service- Inflation only	$ 48.39	$ 49.84	$ 51.33	$ 52.87	$ 54.46	$ 56.09
Cost Per Revenue Hour- Inflation and Considering Expansions, Directly Operated Service	$ 48.39	$ 49.84	$ 53.68	$ 55.03	$ 56.68	$ 58.38
Current WinTran Operating Expenses	$ 843,000	$ 868,290	$ 894,339	$ 921,169	$ 948,804	$ 977,268
Close Mid-day Gap on Amherst Route	$ 6,194	$ 6,379	$ 6,571	$ 6,768	$ 6,971	$ 7,180
Later Hours on Saturdays		$ -	$ 32,032	$ 32,993	$ 33,983	$ 35,003
Downtown Trolley Circulator			$ 57,289	$ 59,008	$ 60,778	$ 62,601
Staff Addition- Operations Manager- Salary and Fringe			$ 60,976	$ 62,805	$ 64,689	$ 66,630
Extensions into Frederick County:						
Berryville Avenue Route			$ 104,464	$ 107,598	$ 110,826	$ 114,151
Amherst Route to Walmart			$ 31,339	$ 32,280	$ 33,248	$ 34,245
Millwood Ave/522 South			$ 104,464	$ 107,598	$ 110,826	$ 114,151
Northside East to Rutherford Crossing			$ 104,464	$ 107,598	$ 110,826	$ 114,151
Corridor Service on Route 11 to Middletown				$ 165,601	$ 170,569	$ 175,686
Total Projected Operating Expenses- Constrained and Unconstrained	**$ 849,194**	**$ 874,669**	**$ 1,395,939**	**$ 1,603,419**	**$ 1,651,521**	**$ 1,701,067**

Notes: Proposed implementation years are estimated. Actual implementation is dependent upon funding availability.

Table 7-1: Winchester Transit TDP Financial Plan for Operations (continued)

Anticipated Funding Sources	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Federal						
FTA S. 5307	$ 374,000	$ 385,220	$ 615,647	$ 634,116	$ 653,140	$ 672,734
FTA S. 5311 to support corridor service to Middletown *	$ -			$ 82,801	$ 85,285	$ 87,843
Subtotal, Federal	$ 374,000	$ 385,220	$ 615,647	$ 716,917	$ 738,424	$ 760,577
State						
Formula Assistance	$ 126,000	$ 129,780	$ 133,673	$ 137,684	$ 141,814	$ 146,069
Local Contributions						
City of Winchester	$ 283,000	$ 291,490	$ 407,510	$ 419,735	$ 432,327	$ 445,297
Revenues- Farebox and Advertising	$ 90,500	$ 93,215	$ 136,131	$ 155,215	$ 159,871	$ 164,668
Old Town Development Board/Visitor's Center to support Trolley *			$ 57,289	$ 59,008	$ 60,778	$ 62,601
Frederick County to support fixed route extensions*			$ 86,183	$ 88,768	$ 91,432	$ 94,174
Frederick County to support corridor service*				$ 82,801	$ 85,285	$ 87,843
Total Local	$ 373,500	$ 384,705	$ 687,113	$ 805,527	$ 829,693	$ 854,583
Total Projected/Proposed Operating Funds/Revenues	**$ 873,500**	**$ 899,705**	**$ 1,436,433**	**$ 1,660,127**	**$ 1,709,931**	**$ 1,761,229**
Surplus/Deficit	**$ 24,306**	**$ 25,036**	**$ 40,494**	**$ 56,708**	**$ 58,410**	**$ 60,162**

Notes: (1) A 3% annual rate of inflation has been assumed.
(2) Funding sources that are not currently in place are marked with an asterisk.
(3) The route extensions into Frederick County have been split 50% S.5307, 25% City, 25% County.
(4) The Route 11 corridor route has been split between S.5311 and Frederick County.
(5) Service improvements for the current program area split 50% S.5307, 50% City
(6) Fares for fixed-route extensions are assumed at 75 cents; fares for corridor service, $1.00.

The plan has also assumed some revenue from the Federal S.5311 program to support the Route 11 Corridor service, matched with funds from Frederick County. This is a proposal at this juncture and will need to be negotiated.

Funding for the fixed-route extensions into Frederick County is proposed to be funded by S.5307 (50%), the City (25%), and the County (25%). This is also a proposal at this writing and will need to be negotiated prior to service implementation.

VEHICLE PURCHASE EXPENSES AND FUNDING SOURCES

Table 7-2 offers the financial plan for vehicle replacement and expansion over the six-year period. The funding split is generally assumed to be 80% federal, 10% state, and 10% local. The plan includes a total of 11 replacement vehicles and 7 expansion vehicles.

FACILITY IMPROVEMENT EXPENSES AND FUNDING SOURCES

The financial plan for facilities, equipment, and other capital is provided in Table 7-3. The major expenses listed in this plan are those associated with WinTran's planned administrative building and advanced technologies. These expenses are also assumed to be funded with federal (80%), state (10%), and local (10%) funds. For FY 2012, the draft DRPT STIP was used. Estimates are provided for Years 2013-2017.

Table 7-2: Winchester Transit TDP Financial Plan for Vehicle Replacement and Expansion

Number of Vehicles	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Replacement	4	3	0	4	0	0
Expansion	0	0	4	1	1	1
Total Vehicles	4	3	4	5	1	1
Vehicle Costs						
Replacement	$ 231,000	$ 344,020	$ -	$ 320,460	$ -	$ -
Expansion	$ -	$ -	$ 278,250	$ 80,115	$ 82,518	$ 84,994
Total Projected Vehicle Costs	$ 231,000	$ 344,020	$ 278,250	$ 400,575	$ 82,518	$ 84,994
Anticipated Funding Sources						
Federal	$ 184,800	$ 275,216	$ 222,600	$ 320,460	$ 66,015	$ 67,995
State	$ 23,100	$ 34,402	$ 27,825	$ 40,058	$ 8,252	$ 8,499
Local	$ 23,100	$ 34,402	$ 27,825	$ 40,058	$ 8,252	$ 8,499
Total Vehicle Funding	$ 231,000	$ 344,020	$ 278,250	$ 400,575	$ 82,518	$ 84,994

Table 7-3: Winchester Transit TDP Financial Plan for Facilities, Equipment, and Other Capital

Projects	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Advanced Technologies- AVL/Real Time Information			$ 200,000			
Miscellaneous Technology Equipment		$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000
Transit Administration Building		$ 600,000				
Shop Equipment, Tools, Miscellaneous Equipment		$ 10,000	$ 10,000	$ 10,000	$ 10,000	$ 10,000
Passenger Shelters	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000
Bus Stop Signs	$ 1,000	$ 1,000	$ 8,000	$ 2,000	$ 1,000	$ 1,000
Total Projected Non-Vehicle Capital Expenses	$ 21,000	$ 636,000	$ 243,000	$ 37,000	$ 36,000	$ 36,000
Anticipated Funding Sources						
Federal	$ 16,800	$ 508,800	$ 194,400	$ 29,600	$ 28,800	$ 28,800
State	$ 2,100	$ 63,600	$ 24,300	$ 3,700	$ 3,600	$ 3,600
Local	$ 2,100	$ 63,600	$ 24,300	$ 3,700	$ 3,600	$ 3,600
Total Projected Non-Vehicle Capital Revenue	$ 21,000	$ 636,000	$ 243,000	$ 37,000	$ 36,000	$ 36,000

Chapter 8

TDP Monitoring and Evaluation

INTRODUCTION

The WinTran TDP, developed over a ten-month period, has included the following tasks:

- Detailed documentation and analysis of current public transportation services;
- A peer review showing the service and financial characteristics of transit programs similar in scope to WinTran;
- A transit needs analysis, including demographic analysis, land use analysis, a review of relevant planning documents, stakeholder interviews, and rider surveys;
- The development of service and organizational alternatives;
- The development of recommendations for transit improvements for inclusion in the TDP, with improvements tentatively identified by year; and
- A financial plan highlighting the funding requirements and potential funding sources for the recommended transit improvements in the region.

The plan is expansionary in nature, with projected growth higher than what WinTran has experienced in the last six years. This growth is in keeping with the newly adopted Comprehensive Plan, but may be optimistic given the current economy. The major expansions discussed in the plan will require additional partners, including the County, the Old Town Development Board, and potentially Shenandoah University.

Service expansions have been included in the plan and they are attached to particular years, but these projects may slip to future years if the proposed funding arrangements do not come to fruition. This TDP may need to be updated during the six-year planning period to reflect funding availability.

COORDINATION WITH OTHER PLANS AND PROGRAMS

The study team for this TDP consulted a number of relevant plans and programs during the development of the six-year plan. The following documents were reviewed, with their associated recommendations incorporated where appropriate:

- 2010 City of Winchester Comprehensive Plan
- Winchester-Frederick County Transit Services Plan
- Performance Review, Winchester Transit, 2009
- Northern Shenandoah Valley Coordinated Human Service Mobility Plan
- Northern Shenandoah Valley Public Mobility Project

SERVICE PERFORMANCE MONITORING

A number of proposed service standards were developed for WinTran (Chapter 2) for this TDP. The purpose of including these standards was to develop some objective measurements of performance that WinTran could use to monitor transit services in the future and make objective, performance-based service planning decisions. It is recommended that WinTran monitor performance monthly.

ANNUAL TDP MONITORING

For this TDP it is particularly important that WinTran monitor the progress each fiscal year. Projects may also need to shift from one year to the next if funding is not available. Alternatively, if the reauthorization of the federal transportation funding program is more generous than SAFETEA-LU, projects could potentially be implemented ahead of schedule or additional projects could be added to the TDP.

WinTran should also monitor the operating statistics for current and new services to ensure that the performance is consistent with the service standards included in this TDP.

APPENDIX A

On-Board Rider Survey

Winchester Transit Development Plan
ON-BOARD RIDER SURVEY

Winchester Transit is conducting a Transit Development Plan. Important tasks for the study are to fully understand the travel patterns of our riders and solicit input. Please complete this survey for your current bus trip. When you are finished with this survey, please give it to the surveyor on your bus. ***Thank you!***

---

1. What route are you **currently** riding?
   - ❑ Berryville Ave. ❑ Apple Blossom Mall ❑ Northside ❑ Trolley
   - ❑ Valley Ave. ❑ Amherst ❑ South Loudoun

2. How did you get from your starting place to the bus stop for this trip?
   - ❑ *(1)*Walked ❑ *(3)* Drove car and parked ❑ *(5)* Other: _____
   - ❑ *(2)* Bicycled ❑ *(4)* Dropped off by someone

3. What was the location where you boarded the bus? If you transferred, the place where you first boarded a bus for this trip. Please indicate the street address, intersection, building, or landmark. *For example, Shenandoah University.* Please do not use vague terms, such as "home" or "work."

   _____

4. Did you or will you have to transfer buses in order to complete this trip?
   ❑*(1)* Yes, one transfer ❑*(2)* Yes, two or more transfers ❑*(3)* No (If No, Skip to question #6)

5. What bus route(s) will you transfer to or did you transfer from?
   - ❑ Berryville Ave. ❑ Apple Blossom Mall ❑ Northside ❑ Trolley
   - ❑ Valley Ave. ❑ Amherst ❑ South Loudoun

6. How will you get to your ending place from the last bus you ride for this trip?
   - ❑ *(1)*Walk ❑ *(3)* Drive my car ❑ *(5)* Other: _____
   - ❑ *(2)* Bicycle ❑ *(4)* Picked up by someone

7. What is your destination? Please indicate the street address, intersection, building, or landmark. *For example, Apple Blossom Mall.* Please do not use vague terms such as "home" or "work."

   _____

8. What is the purpose of your bus trip today? You may check more than one.

   - ❑ *(1)* Work ❑ *(4)* Social/ Recreation ❑ *(7)* Other: _____
   - ❑ *(2)* Shopping ❑ *(5)* Medical
   - ❑ *(3)* School ❑ *(6)* Government Service Agency

9. If WinTran were to make service improvements, what would be your top three choices?

   (1)_____ (2) _____ (3) _____

10. If WinTran were to serve additional neighborhoods or geographic areas, what would be your top three choices?

    (1)_____ (2) _____ (3) _____

OVER, PLEASE ☞

11. Please rate your satisfaction with WinTran services in the following areas:

	Very Satisfied (1)	Satisfied (2)	Unsatisfied (3)	Very Unsatisfied (4)
On-time performance	❑	❑	❑	❑
Convenience of bus routes	❑	❑	❑	❑
Convenience of bus stop locations	❑	❑	❑	❑
Days of service	❑	❑	❑	❑
Hours of service	❑	❑	❑	❑
Frequency of service	❑	❑	❑	❑
Cost of bus fare	❑	❑	❑	❑
Cleanliness of the buses	❑	❑	❑	❑
Driver courtesy	❑	❑	❑	❑
Availability of information	❑	❑	❑	❑
Safety and security	❑	❑	❑	❑
Telephone customer service	❑	❑	❑	❑
Usefulness of WinTran website	❑	❑	❑	❑

12. How would you classify yourself?

❑ *(1)* African American ❑ (*3*) Caucasian ❑ *(5)* Native American
❑ *(2)* Asian American ❑ *(4)* Hispanic/Latino ❑ (*6*) Other

13. Are you: ❑ *(1)* Male ❑ *(2)* Female 14. Do you have a driver's license? ❑ *(1)*Yes ❑ *(2)* No

15. How many vehicles (cars, trucks, motorcycles) are available in the household where you live?

❑ 0 ❑ 1 ❑ 2 ❑ 3 ❑ 4 or more

16. Please indicate your age group.

❑ *(1)* Under 12 years old ❑ (*3*) 18-25 years old ❑ *(5)* 56-64 years old
❑ *(2)* 12-17 years old ❑ *(4)* 26-55 years old ❑ (*6*) 65 years old or older

17. Which of the following best describes your current employment status? You may check more than one.

❑ *(1)* Employed, full-time ❑ *(4)* Student, full-time ❑ *(7)* Unemployed
❑ *(2)* Employed, part-time ❑ *(5)* Student, part-time ❑ *(8)* Other
❑ (*3*) Retired ❑ (*6*) Homemaker

18. What is your annual household income level? Please check only one.

❑ *(1)* $14,999 or less ❑ *(3)* $30,000-$44,999 ❑ *(5)* $60,000- $74,999
❑ *(2)* $15,000- $29,999 ❑ (*4*) $45,000-$59,999 ❑ (*6*) $75,000 or higher

19. Please provide any comments you may have concerning public transportation in the City of Winchester.

APPENDIX B

FTA Triennial Review Report

FINAL REPORT

FY2009 TRIENNIAL REVIEW

of the

City of Winchester
Department of Transportation
d.b.a
Winchester Transit
Winchester, VA

Desk Review Date: February 11, 2009
Site Visit Date: June 30 & July 1, 2009

July 2009

Prepared for the
Federal Transit Administration
Region III
Philadelphia, PA

by

Interactive Elements Incorporated

Table of Contents

I. TRIENNIAL REVIEW BACKGROUND 1

II. REVIEW PROCESS 1

III. DESCRIPTION OF THE GRANTEE 2

IV. RESULTS OF THE REVIEW 2

1. Legal 3
2. Financial 3
3. Technical 3
4. Satisfactory Continuing Control 4
5. Maintenance 4
6. Procurement 5
7. Disadvantaged Business Enterprise (DBE) 5
8. Buy America 5
9. Suspension/Debarment 5
10. Lobbying 6
11. Planning/Program of Projects 6
12. Title VI 6
13. Public Comment Process for Fare Increases and Service Reductions 7
14. Half Fare 7
15. ADA 7
16. Charter Bus 8
17. School Bus 8
18. National Transit Database (NTD) 8
19. Safety and Security 8
20. Drug-Free Workplace 9
21. Drug and Alcohol Program 10
22. Equal Employment Opportunity (EEO) 10
23. ITS Architecture 10

V. SUMMARY OF FINDINGS AND CORRECTIVE ACTIONS 11

VI. TRANSIT SECURITY EXPENDITURES 13

VII. ATTENDEES 14

I. TRIENNIAL REVIEW BACKGROUND

The United States Code, chapter 53 of title 49, requires the Federal Transit Administration (FTA) of the United States Department of Transportation (USDOT) to perform reviews and evaluations of Urbanized Area Formula Grant activities at least every three years. This requirement is contained in 49 U.S.C. 5307(i).

> (2) At least once every 3 years, the Secretary shall review and evaluate completely the performance of a recipient in carrying out the recipient's program, specifically referring to compliance with statutory and administrative requirements and the extent to which actual program activities are consistent with the activities proposed under subsection (d) of this section and the planning process required under sections 5303-5306 of this title.
>
> (3) The Secretary may take appropriate action consistent with the review, audit and evaluation under this subsection, including making an appropriate adjustment in the amount of a grant or withdrawing the grant.

The Triennial Review includes a review of the grantee's compliance in 23 different areas. The basic requirements for each of these areas are summarized below.

This report presents the findings from the Triennial Review of the City of Winchester of Winchester, VA. This review was performed in accordance with FTA procedures (published in FTA Order 9010.1B, April 5, 1993) and included preliminary reviews of documents on file at the Region III Office in Philadelphia and on-site discussions and review of the procedures, practices, and records of the City of Winchester as deemed necessary. The review concentrated primarily on procedures and practices employed during the past three years; however, coverage was extended to earlier periods as needed to assess the policies in place and the management of grants. During the visit, administrative and statutory requirements were discussed, documents were reviewed, and facilities were toured. Specific documents examined during the Triennial Review are available in FTA's and City of Winchester's files.

II. REVIEW PROCESS

The desk review was conducted in the Region III Office on February 11, 2009. Following the desk review, an agenda package was sent to the City of Winchester advising it of the site visit and indicating additional information that would be needed and issues that would be discussed.

The site visit to the City of Winchester occurred on June 30 & July 1, 2009. The individuals participating in the review are listed in Section VII of this report.

At the entrance conference, the purpose of the Triennial Review and the review process were discussed. During the site visit, urbanized area formula grant program administrative and

statutory requirements were discussed and documents were reviewed. The City of Winchester's transit facilities were toured to provide an overview of activities related to FTA-funded projects. A sample of FTA-funded vehicles was inspected during the site visit.

On completion of the review, an exit conference was held with the City of Winchester staff to discuss findings, corrective actions and schedules. This information is summarized in the table in Section V of this report. A draft copy of this report was provided to the City of Winchester at the exit conference.

III. DESCRIPTION OF THE GRANTEE

The City of Winchester Department of Public Transportation (the City), *d.b.a.* Winchester Transit, provides transit service in the City of Winchester and parts of Frederick County, particularly the main corridors along Berryville Avenue, Valley Avenue, South Loudoun Street, Amherst Street, the Pleasant Valley/Mall area and the North side of town. In Frederick County, Winchester Transit serves the Route 11-corridor as far south as Middletown, several heavily populated areas in Stephens City, Route 522 South and several heavily-populated areas along Greenwood Road and Senseny Road. Winchester Transit is a department of the City of Winchester and operates all transit service in-house. The population of its service area is approximately 24,000.

The City operates a network of nine fixed routes. Service is provided weekdays from 6:00 a.m. to 6:00 p.m. Saturday service is operated from 9:00 a.m. to 4:00 p.m. There is no service on Sundays. The grantee's complementary paratransit service operates during the same days and hours of service as the fixed routes.

The basic adult fare for bus service is $1.00. A reduced fare of $.50 is offered to elderly cardholders. The fare for ADA paratransit service is $.50.

The City operates a fleet of eight buses for fixed-route service. Its bus fleet consists of standard 30 and 35-foot transit coaches, minibuses, and rubber-tired trolleys. The current peak requirement is for four vehicles. The City also has a fleet of two paratransit vans.

The City operates from a single maintenance and administration facility in Winchester, VA. Its service is oriented around a transit center in downtown area.

Over the next three to five years, the City plans to seek demonstration grants to open two more routes in Frederick County, as well as extend service to other local counties that might have unfilled transportation needs. The City plans to build an office facility that would include a command center for the administrative personnel, a conference room to conduct driver meetings and a new break room for the staff.

IV. RESULTS OF THE REVIEW

The Triennial Review focused on the City of Winchester's compliance in 23 different areas. This section provides a discussion of the basic requirements and findings in each area. No deficiencies were found with the FTA requirements in 19 of the 23 areas. Deficiencies were found in the other 4 areas: Satisfactory Continuing Control, Maintenance, ADA, and Drug and Alcohol Program.

1. Legal

Basic Requirement: The grantee must be eligible and authorized under state and local law to request, receive, and dispense FTA funds and to execute and administer FTA funded projects. The authority to take all necessary action and responsibility on behalf of the grantee must be properly delegated and executed.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for legal.

2. Financial

Basic Requirement: The grantee must demonstrate the ability to match and manage FTA grant funds, cover cost increases, cover operating deficits through long-term stable and reliable sources of revenue, maintain and operate federally funded facilities and equipment, and conduct an annual independent organization-wide audit in accordance with the provisions of OMB Circular A-133.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for financial.

3. Technical

Basic Requirement: The grantee must be able to implement the Urbanized Area Formula Grant Program of Projects in accordance with the grant application, Master Agreement, and all applicable laws and regulations, using sound management practices.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for technical.

4. Satisfactory Continuing Control

Basic Requirement: The grantee must maintain control over real property, facilities, and equipment and ensure that they are used in transit service.

Findings: During this Triennial Review of the City of Winchester, deficiencies were found with the FTA requirements for satisfactory continuing control.

City staff performed its annual inventory of the City's vehicles and equipment. The City has not reconciled the results of the annual inventory.

The City's spare ratio for fixed route buses exceeds FTA's guidelines. The City operates 3 buses and one trolley in fixed route service. The City has 3 inactive buses and one trolley for a total of 8 buses. The City's peak service requirement is for 4 vehicles, resulting in a spare ratio of 100 percent. While the City has fewer than 50 vehicles, the spare ratio is excessive.

Corrective Actions and Schedule: Within 30 days of the issuance of the final report or by August 31, 2009, the City must reconcile its vehicle and equipment records. The City must provide FTA Region III Office with a reconcilliation of its March 2009 inventory.

Corrective Actions and Schedule: Within 30 days of the issuance of the final report or by August 31, 2009, the City must provide FTA with a disposition plan to come into compliance with FTA spare ratio guidelines.

5. Maintenance

Basic Requirement: The grantee must keep federally funded equipment and facilities in good operating order.

Findings: During this Triennial Review of the City of Winchester, deficiencies were found with the FTA requirements for maintenance.

The City has developed a maintenance plan that requires preventive maintenance to be performed on its FTA-funded vehicles at 3,000 mile intervals. In a review of The City's preventative maintenance records, it noted that that preventive maintenance was not performed timely in accordance with the plan. An inspection of the City subfleet resulted in a 75 percent on time rate.

Corrective Actions and Schedules: Within 90 days of the issuance of the final report or by October 29, 2009, the City needs to address the occurrences of late Preventative Maintenance Inspections (PMIs) to ensure that FTA's capital investment is not being jeopardized. The City must provide FTA Region III with a report on its results for the next three months beginning in August.

6. Procurement

Basic Requirement: FTA grantees will use their own procurement procedures that reflect applicable state and local laws and regulations, provided that the process ensures competitive procurement and that the procedures conform to applicable federal law including 49 CFR Part 18, specifically Section 18.36 and FTA Circular 4220.1E, "Third Party Contracting Requirements." Grantees will maintain a contract administration system that ensures that contractors perform in accordance with terms, conditions, and specifications of their contracts or purchase orders.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for procurement.

7. Disadvantaged Business Enterprise (DBE)

Basic Requirement: The grantee must comply with the policy of DOT that DBEs, as defined in 49 CFR Part 26, are ensured nondiscrimination in the award and administration of DOT-assisted contracts. Grantees also must create a level playing field on which DBEs can compete fairly for DOT-assisted contracts; ensure that only firms that fully meet eligibility standards are permitted to participate as DBEs; help remove barriers to the participation of DBEs; and assist the development of firms that can compete successfully in the marketplace outside the DBE program.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with USDOT requirements for DBE.

8. Buy America

Basic Requirement: Per FTA's "Buy America" requirements, federal funds may not be obligated unless steel, iron, and manufactured products used in FTA funded projects are produced in the United States, unless FTA has granted a waiver, or the product is subject to a general waiver. Rolling stock must have sixty percent domestic content and final assembly must take place in the United States.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for Buy America.

9. Suspension/Debarment

Basic Requirement: To protect the public interest and prevent fraud, waste, and abuse in federal transactions, persons or entities, which by defined events or behavior, potentially threaten the integrity of federally administered programs, are excluded from participating in FTA assisted programs. Federal agencies use the government-wide nonprocurement debarment and

suspension system to exclude from Federal programs persons who are not presently responsible. Grantees are required to ensure to the best of their knowledge and belief that none of the grantee's "principals" (as defined in the governing regulation 2 CFR Part 180), subrecipients, and third-party contractors and subcontractors is debarred, suspended, ineligible, or voluntarily excluded from participation in federally assisted transactions or procurements. Grantees are strongly encouraged to review the Excluded Parties Listing System (http://www.epls.gov/) before entering into any third party contracts.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for suspension/debarment.

10. Lobbying

Basic Requirement: Recipients of federal grants and contracts exceeding $100,000 must certify compliance with Restrictions on Lobbying before they can receive funds. In addition, grantees are required to impose the lobbying restriction provisions on their contractors.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for lobbying.

11. Planning/Program of Projects

Basic Requirement: The grantee must participate in the transportation planning process in accordance with FTA requirements, SAFETEA-LU, and the Metropolitan and Statewide Planning Regulations.

Each recipient of a grant shall have complied with the public participation requirements of Section 5307(c) (1) through (7). Each recipient is required to develop, publish, afford an opportunity for a public hearing on, and submit for approval a Program of Projects (POP).

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for planning/POP.

12. Title VI

Basic Requirement: The grantee must ensure that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participating in, or denied the benefits of, or be subject to discrimination under any program, or activity receiving federal financial assistance. The grantee must ensure that federally supported transit services and related benefits are distributed in an equitable manner.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for Title VI.

13. Public Comment Process for Fare Increases and Service Reductions

Basic Requirement: The grantee is expected to have a written copy of a locally developed process to solicit and consider public comment before raising a fare or carrying out a major reduction of transportation services.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for public comment process for fare increases and service reductions.

14. Half Fare

Basic Requirement: Grantees must ensure that elderly persons and persons with disabilities, or an individual presenting a Medicare card will be charged, during non-peak hours for transportation using or involving a facility or equipment of a project financed under Section 5307, not more than 50 percent of the peak hour fare.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for half fare.

15. ADA

Basic Requirement: Titles II and III of the Americans with Disabilities Act of 1990 provide that no entity shall discriminate against an individual with a disability in connection with the provision of transportation service. The law sets forth specific requirements for vehicle and facility accessibility and the provision of service, including complementary paratransit service.

Findings: During this Triennial Review of the City of Winchester, deficiencies were found with the FTA requirements for ADA.

The City has deficiencies with its ADA service provision. The City indicated that its bus drivers were not making stop announcements.

Corrective Actions and Schedule: Within 30 days of the issuance of the final report or by August 31, 2009, the City will implement all required service provisions and provide evidence of the implementation to FTA.

16. Charter Bus

Basic Requirement: FTA grantees are prohibited from using federally funded equipment and facilities to provide charter service if a registered private charter operator expresses interest in providing the service.

The grantees are allowed to operate community based charter services exempted under the regulations; some irregular or limited duration services; and those that are covered by the exceptions.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for charter bus.

17. School Bus

Basic Requirement: FTA grantees are prohibited from providing exclusive school bus service unless it qualifies under specified exceptions. In no case can federally funded equipment or facilities be used.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for school bus.

18. National Transit Database (NTD)

Basic Requirement: Grantees that receive 5307 and 5311 grant funds must collect, record, and report financial and non-financial data in accordance with the Uniform System of Accounts (USOA) and updated with the National Transit Database (NTD) Reporting Manual as required by 49 USC 5335(a).

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for National Transit Database.

19. Safety and Security

Basic Requirement: Any recipient of Urbanized Area Formula Grant Program funds must annually certify that it is spending at least one percent of such funds for transit security projects or that such expenditures for security systems are not necessary.

Under the safety authority provisions of the Federal transit laws, the Secretary has the authority to investigate the operations of the grantee for any conditions that appear to create a serious hazard of death or injury, especially to patrons of the transit service. States are required to oversee the safety of rail fixed guideway systems through a designated oversight agency, per 49 CFR Part 659, Rail Fixed Guideway Systems, State Safety Oversight.

Under security, a list of 17 Security and Emergency Management Action Items has been developed by FTA and the Department of Homeland Security's Transportation Security Administration (TSA). This list of 17 items, an update to the original FTA Top 20 security action items list, was developed in consultation with the public transportation industry through the Mass Transit Sector Coordinating Council, for which the American Public Transportation Association (APTA) serves as Executive Chair. Security and Emergency Management Action Items for Transit Agencies aim to elevate security readiness throughout the public transportation industry by establishing baseline measures that transit agencies should employ.

The goal of FTA's Safety and Security Program is to achieve the highest practical level of safety and security in all modes of transit. To this end, FTA continuously promotes the awareness of safety and security throughout the transit community by establishing programs to collect and disseminate information on safety/security concepts and practices. In addition, FTA develops guidelines that transit systems can apply in the design of their procedures and by which to compare local actions. As such, many of the questions in this review area are designed to determine what efforts grantees have made to develop and implement safety, security, and emergency management plans. While there may not be specific requirements associated with all of the questions, grantees are encouraged to implement the plans, procedures, and programs referenced in these questions. For this reason, findings in this area will most often result in advisory comments rather than deficiencies.

Findings: A summary of the City of Winchester's expenditures of Section 5307 funds for security projects is provided in Section VI of this report.

During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for safety and security.

20. Drug-Free Workplace

Basic Requirement: FTA grantees are required to maintain a drug-free workplace for all employees and to have an ongoing drug-free awareness program.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for drug-free workplace.

21. Drug and Alcohol Program

Basic Requirement: Grantees receiving FTA funds under Capital Grant (Section 5309), Urbanized Area Formula Grant (Section 5307), or Non-Urbanized Area Formula Grant (Section 5311) Programs must have a drug and alcohol testing program in place for all safety-sensitive employees.

Findings: During this Triennial Review of the City of Winchester, deficiencies were found with the FTA requirements for the drug and alcohol program.

A review of the City's Drug and Alcohol policy indicated that there is no policy regarding secondary testing upon receipt of Negative Dilute test results from the Medical Review Officer (MRO).

Corrective Action and Schedule: Within 30 days of the issuance of the final report or by August 31, 2009, the City of Winchester must revise its Drug and Alcohol policy to clearly define procedures for secondary testing upon receipt of Negative Dilute test results from the Medical Review Officer (MRO). The City must provide FTA Region III Office with a copy of the revised policy.

22. Equal Employment Opportunity (EEO)

Basic Requirement: The grantee must ensure that no person in the United States shall on the grounds of race, color, religion, national origin, sex, age, or physical or mental disability be excluded from participating in, or denied the benefits of, or be subject to discrimination in employment under any project, program, or activity receiving federal financial assistance from the federal transit laws.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for EEO.

23. ITS Architecture

Basic Requirement: Intelligent Transportation Systems (ITS) projects funded by the Highway Trust Fund and the Mass Transit Account must conform to the National ITS Architecture, as well as to United States Department of Transportation (USDOT) adopted ITS Standards.

Findings: During this Triennial Review of the City of Winchester, no deficiencies were found with the FTA requirements for ITS architecture.

VI. TRANSIT SECURITY EXPENDITURES

Does the grantee expend one percent or more of its Section 5307 Urbanized Area Formula Grant funds for transit security? FY2006: Yes___ No_x
FY2007: Yes___ No_x
FY2008: Yes___ No_x_

If no, why does the grantee consider such expenditure unnecessary (check all that apply):
_____ No deficiency found from a threat and vulnerability assessment
_____ TSA/FTA Security and Emergency Management Action Items met or exceeded
___x_ Other (please describe): _Using Local funds for security_____

Security Funding	FTA Section 5307 Funds (in Dollars)		
	FY 2006	FY 2007	FY 2008
Total amount of 5307 Funds expended			
Amount of 5307 Funds expended on security			
Percent of 5307 Funds expended on security	%	%	%
Infrastructure/Capital Improvement Security Projects:			
Lighting, Fencing & Perimeter Control			
CCTV and Surveillance Technology			
Communications Systems			
Security Planning [a]			
Drills & Tabletop Exercises [a]			
Employee Security Training [a]			
Other Security-Related Infrastructure & Capital Improvements (please list): _____			
Operating/Personnel Expenditures (can only be used by agencies in areas with populations UNDER 200,000):			
Contracted Security Force			
In-house Security Force			
Other Security-Related Operating Expenditures (please list): _____			

[a] SAFETEA-LU amended the definition of a capital project to include:
- projects to refine and develop security and emergency response plans;
- the conduct of emergency response drills with public transportation agencies and local first response agencies; and
- security training for public transportation employees.

VII. ATTENDEES

Name	Title/Organization	Phone Number	e-mail address
Grantee			
Renee Wells	Transit Director	540-667-1815	rwells@ci.winchester.va.us
Ken Pollock	Rural Transit Specialist VA. DRPT	804-786-7858	Kenneth.pollock@drpt.virginia.gov
FTA			
Karen Roscher	Transportation Program Specialist	215-656-7002	karen.roscher@fta.dot.gov
Reviewer			
Walter Carter	Reviewer	773-375-8285	wcc@ieitransit.com
Louise Carter	Secondary Reviewer	773-221-0110	lpc@ieitransit.com

APPENDIX C

Trip Generator Tables

Shopping Destinations in Winchester, Virginia

Name	Address	City
Apple Blossom Center Shopping Center	601 E Jubal Early Dr	Winchester
Apple Blossom Corners Shopping Center	2190 S Pleasant Valley Rd	Winchester
Apple Blossom Mall	1850 Apple Blossom Dr	Winchester
Apple Valley Square Shopping Center	832 Berryville Ave	Winchester
Blue and Gray Mall	2634 Valley Ave	Winchester
Burke Center Shopping Center	2119 S Loudoun St	Winchester
Centre at Winchester	Patsy Cline Blvd and Legge Blvd	Winchester
Costco Wholesale	251 Front Royal Pike	Winchester
Creekside Station	106 Creekside Ln	Winchester
Crossroads Grocery & Fruit	119 Cedar Grove Rd	Winchester
Dale's Grocery	702 N Cameron St	Winchester
Delco Plaza of Winchester Shopping Center	182 Delco Plaza	Winchester
Featherbed Lane Plaza Shopping Center	2021 S Pleasant Valley Rd	Winchester
Food Lion	2600 Valley Ave	Winchester
Food Lion	707 Fort Collier Rd	Winchester
Food Lion	249 Sunnyside Plaza Cir	Winchester
Food Lion	190 Delco Plaza	Winchester
Food Lion	159 Grocery Ave	Winchester
Food Lion	380 Fairfax Pike	Stephens City
Fredericktowne Crossing Shopping Center	226 Elizabeth Dr	Stephens City
G K Foods	202 Loudoun St	Winchester
G K Foods	154 Creekside Ln	Winchester
Gainesboro Market	4780 N Frederick Pike	Winchester
Green Spring Grocery Store	617 Green Spring Rd	Winchester
Harvest Moon Natural Foods	3113 Valley Ave	Winchester
Hispanic Grocery	209 N Kent St	Winchester
Hispanic Grocery	2018 S Loudoun St	Winchester
Kern's Street Convenience	210 Kern St	Winchester
K-Mart	1675 S Pleasant Valley Rd	Winchester
La Priscilla Mexican Store	5326 Main St	Stephens City
Marker-Miller Orchards	3035 Cedar Creek Grade	Winchester
Martin's Food Market	1950 S Pleasant Valley Rd	Winchester
Martin's Food Market	200 Rivendell Ct	Winchester
Martin's Food Market	240 Elizabeth Dr	Stephens City
Martin's Food Market	234 Brunswick Rd	Stephens City
Martin's Food Market	400 Gateway Dr	Winchester
Mercado La Vuena Fe	2836 Valley Ave	Winchester
Millwood Crossing Shopping Center	381 Millwood Ave	Winchester
Northside Station Shopping Center	813 N Loudoun St	Winchester
Oakhill Groceries	2708 Berryville Pike	Winchester
Pharmhouse Shopping Center	1109 Berryville Ave	Winchester
Pineville Plaza Shopping Center	2208 Wilson Blvd	Winchester
Round Hill Shopping Center	2578 Northwestern Pike	Winchester
Safeway	2207 Valley Ave	Winchester
Shen-Valley Flea Market	Route 522 and Route 340	Winchester

Shopping Destinations in Winchester, Virginia

Name	Address	City
Smith's Corner Grocery	3430 Northwestern Pike	Winchester
Sours Grocery	4973 Middle Rd	Winchester
Sours Grocery	Middle Rd	Stephens City
Southpark Shopping Center	2600 Valley Ave	Winchester
Sunnyside Plaza Shopping Center	235 Sunnyside Plaza Cir	Winchester
Target	2340 Legge Blvd	Winchester
Target	191 Market St	Winchester
Throx Country Store	1488 Senseny Rd	Winchester
Tienda Popular	805 N Loudoun St	Winchester
Tom's Market	1998 Back Mountain Rd	Winchester
Walmart Supercenter Store	2300 S Pleasant Valley Rd	Winchester
Walmart Supercenter Store	501 Wal Mart Dr	Winchester
Ward Plaza Shopping Center	2218 Valley Ave	Winchester
West Oaks Farm Market	1107 Cedar Creek Grade	Winchester
Whitehall Grocery	3258 Apple Pie Ridge Rd	Winchester
Winchester Gateway Shopping Center	380 Gateway Dr	Winchester
Winchester Station	2540 S Pleasant Valley Rd	Winchester

Educational and Daycare Facilities in Winchester, VA

Name	Address	City
Abundant Life Christian Center - Child Day Center	700 Aylor Rd	Stephens City
Agape Christian Church - Child Day Center	201 Agape Way	Stephens City
Almost Home Pre-School	1121 Berryville Ave	Winchester
Apple County Head Start at Douglas Learning Center	598 N Kent St	Winchester
Apple County Head Start-Tri County Virginia OIC-Poux Center	444 Shady Elm Rd	Winchester
Apple Valley Montessori School, Inc.	1905 Henry Ave	Winchester
Appletree Club House Day Care	2077 N Frederick Pike	Winchester
B L & P Daycare LLC	4125 Valley Pike	Winchester
Braddock Street United Methodist Early Learning Center	115 Wolfe St	Winchester
Centenary Christian Pre School & Daycare	202 S Cameron St	Winchester
Children of America - Stephens City	201 Centre Dr	Stephens City
Children of America - Winchester	631 W Jubal Early Dr	Winchester
Children's Enrichment Program	77 Merrimans Ln	Winchester
First Baptist Church/"Son Shine" Learning Center	205 W Piccadilly St	Winchester
First Presbyterian Church-Winchester	116 S Loudoun St	Winchester
First United Methodist Church-Winchester	308 N Braddock St	Winchester
Fremont Street Nursery	533 Fremont St	Winchester
Grace Community Church	2333 Roosevelt blvd	Winchester
Lighthouse Baptist Church (Rosedale)	2581 Northwestern Pike	Winchester
Cuddle Bears Daycare	341 Sunnyside Plaza Cir	Winchester
Market Street United Methodist Church	131 S Cameron St	Winchester
Mt. Carmel Baptist Church	1317 S Pleasant Valley Rd	Winchester
Sacred Heart Academy	110 Keating Dr	Winchester
Sharon's Centre for Higher Learning	233 Fairfax Pike	Stephens City
Sharon's Day Care Center Inc.	1855 Senseny Rd	Winchester
Shenandoah Valley Baptist Church - Child Day Center	4701 Valley Pike	Stephens City
Stephens City United Methodist Church - Child Day Center	5291 Main St	Stephens City
T.L.C. Daycare Center, LLC	32 Weems Ln	Winchester
The Children's Enrichment Program	75 Merrimans Ln	Winchester
The Little Gym of Winchester	3107 Valley Ave	Winchester
Training His Tots	153 Narrow Ln	Winchester
Valley Health Child Care Center	1842 Amherst St	Winchester
Victory Church/Rainbow Express Preschool	2870 Middle Rd	Winchester
Winchester Academy Preschool	915 S Cameron St	Winchester
Winchester Day Nursery	133 Lincoln St	Winchester
Academy Total Health Center LLC	105 Cotswold Ct	Stephens City
Admiral Richard E. Byrd Middle School	134 Rosa Ln	Winchester
Crossroads Christian Academy	1309 Opequon Ave	Winchester
Daniel Morgan Middle School	48 S Purcell Ave	Winchester
Dowell J. Howard Center-Adult Education	156 Dowell J Circle	Winchester
Frederick County Middle School	441 Linden Dr	Winchester
Grafton School-Community Residences	1532 Fairfax Pike	Stephens City
Grafton School, Inc.	120 Bellview Ave	Winchester
Grafton School, Inc.	407 Elm St	Winchester
Handley Regional Library	100 W Piccadilly St	Winchester

Educational and Daycare Facilities in Winchester, VA

Name	Address	City
James Wood High School	161 Apple Pie Ridge Rd	Winchester
James Wood Middle School	1313 Amherst St	Winchester
John Handley High School	425 Handley Blvd	Winchester
Lord Fairfax Community College-Middletown Campus	173 Skirmisher Ln	Middletown
Mary Jane & James L. Bowman Library	871 Tasker Rd	Stephens City
Millbrook High School	251 First Woods Dr	Winchester
Mount Vista Governor's School-Middletown Campus (LFCC)	173 Skirmisher Ln	Middletown
Mountain View Christian Academy	153 Narrow Ln	Winchester
Northwestern Regional Education Programs	1481 Senseny Rd	Winchester
Parent Resource Center	1481 Senseny Rd	Winchester
Robert E. Ayler Middle School	901 Aylor Rd	Stephens City
Rosedale Christian Academy	2581 Northwestern Pike	Winchester
Sacred Heart Academy	110 Keating Dr	Winchester
Shenandoah University	1460 University Dr	Winchester
Shenandoah Valley Christian Academy	4701 Valley Pike	Stephens City

Government Services in Winchester, VA

Name	Address	City
Emergency Management (Timbrook Public Safety Center)	231 E Piccadilly St	Winchester
Office of Housing and Neighborhood Development	107 N East Ln	Winchester
Rouss City Hall	15 N Cameron St	Winchester
Winchester-Frederick County Chamber of Commerce	2 N Cameron St	Winchester
Winchester-Frederick County Economic Development Commission	45 E Boscawen St	Winchester

High Density Housing in Winchester, Virginia

Name	Address	City
Autumn Wind Apartments	140 Scarlet Maple Dr	Winchester
Birchwood Terrace	760 Plymouth St	Stephens City
Blue and Gray Apartments	2640 Valley Ave	Winchester
Bradford Village Apartments	2530 Bradford St	Winchester
Cambridge Court Apartments	548 Brookfield Dr	Winchester
Cedarwood Terrace	801 Comer Dr	Stephens City
Fort Collier Terrace	2971 Valley Ave	Winchester
Frederick House	107 Lakeridge Dr	Stephens City
Fuller House Inn	220 W Boscawen St	Winchester
Maplewood Terrace	761 Plymouth St	Stephens City
North City Apartments	800 Thomas Ct	Winchester
Orchardcrest Apartments	2524 Wilson Blvd	Winchester
Pemberton Village Apartments	680 Pemberton Dr	Winchester
Peppertree Apartments	221 Peppertree Ln	Winchester
Preston Place Apartments	124 Castlebridge Ct	Winchester
Shenandoah Valley Community Residences	Forrest Dr	Winchester
Stuart Hill Apartments	1981 Randolph Pl	Winchester
Wakeland Manor	1875 Double Church Rd	Stephens City
Winchester Towers	200 N Cameron St	Winchester
Amerisist of Stephens City	110 Spanish Oak Rd	Stephens City
Bon Air Home for Elderly	5933 Valley Pike	Stephens City
Hilltop House Assisted Living	111 Denny Ln	Winchester
Robert E. Rose Memorial Foundation, Inc.	549 Valley Mill Rd.	Winchester
Royal Haven - Winchester	1725 Henry Ave	Winchester
Spring Arbor of Winchester	2093 Northwestern Pike	Winchester
The Willows at Meadow Branch	1881 Harvest Dr	Winchester
Winchester Manor (Apple Manor)	1011 Pennsylvania Ave	Winchester
Evergreen Health & Rehabilitation of Winchester	380 Millwood Ave	Winchester
Ruxton Health of Winchester, LLC	110 Lauck Dr	Winchester
Shenandoah Apartments	2527 Wilson Blvd	Winchester
Stephens Village Apartments	390 Stickley Dr	Stephens City
Shenandoah Valley Westminster-Canterbury	300 Westminster-Canterbury Dr	Winchester
The Village at Orchard Ridge	117 E Piccadilly St	Winchester
Holcomb House	110 Lee St	Winchester
Winchester House	27 S Cameron St	Winchester

High Density Housing in Winchester, Virginia

Type of Housing
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Apartment
Assisted Living
Assisted Living
Assisted Living
Assisted Living
Assisted Living
Assisted Living
Assisted Living
Assisted Living
Nursing Home
Nursing Home
Housing for Persons with Disabilities
Housing for Persons with Disabilities
Housing for Seniors
Housing for Seniors
Housing for Seniors and Persons with Disabilities
Housing for Seniors and Persons with Disabilities

Human Service Agencies in Winchester, Virginia

Name	Address	City
ABBA	200 Weem's Ln	Winchester
Access Independence	324 Hope Dr	Winchester
Adult Care Center of the Northern Shenandoah Valley	115 Wolfe St	Winchester
Godfrey Miller Historic Home and Fellowship Center	28 S Loudoun St	Winchester
AIDS Response Effort, Inc.	333 W Cork St	Winchester
The Arc of Northern Shenandoah Valley	119 Youth Development Ct	Winchester
Blue Ridge Hospice	333 W Cork St	Winchester
Blue Ridge Hospice	760 Warrior Dr	Stephens City
Blue Ridge Legal Services	119 Kent St	Winchester
C-CAP	2011 Valley Ave	Winchester
Child Support District Office	24 Ricketts Dr	Winchester
CLEAN Inc.	129 Youth Development Ct	Winchester
Community Housing Partners	360 McGhee Rd	Winchester
Community Services Campus (Health Social Issues)	329 N Cameron St	Winchester
Concern Hotline, Inc.	301 N Cameron St	Winchester
Council on Alcoholism Lord Fairfax Community Inc.	512 S Braddock St	Winchester
Counseling Center, LCSW	132 N Braddock St	Winchester
Department of Rehabilitative Services	20 Ricketts Dr	Winchester
Faith in Action-Winchester/Frederick/Clarke	333 W Cork St	Winchester
Frederick County Department of Social Services (DSS)	107 N Kent St	Winchester
Frederick County Senior Center	5291 Main St	Stephens City
Goodwill Winchester	433 Millwood Ave	Winchester
Habitat for Humanity of Winchester-Frederick County	145 Baker St	Winchester
Healthy Families Northern Shenandoah Valley	301 N Cameron St	Winchester
Hispanic Ministries	102 Montague Ave	Winchester
Isaiah 58 Project, Inc.	419 N Cameron St	Winchester
The Laurel Center--The Shelter for Abused Women	PO Box 14	Winchester
Literacy Volunteers-Winchester Area	301 N Cameron St	Winchester
Lutheran Family Services of Virginia Inc	26 W Boscawen St	Winchester
Northwestern Community Services	158 Front Royal Pike	Winchester
NW Works, Inc.	828 Smithfield Rd	Winchester
Our Family Center	300 Fort Collier Rd	Winchester
Our Health, Inc.	329 N Cameron St	Winchester
Outreach to Asian Nationals	261 Bethany Hill Dr	Winchester
Robert E. Rose Memorial Foundation, Inc.	549 Valley Mill Rd	Winchester
The Salvation Army (Emergency Shelter)	300 Fort Collier Rd	Winchester
Shenandoah Valley Runners	402 S Stewart St	Winchester
Union Rescue Mission of Winchester	435 N Cameron St	Winchester
United Way of Northern Shenandoah Valley	329 N Cameron St	Winchester
USDA Rural Development, Stephens City (Housing Repair)	130 Carriebrooke Dr	Stephens City
Valley Health	1840 Apple Blossom Dr	Winchester
Winchester Department of Social Services	24 Baker St	Winchester
Winchester Exchange Child-Parent Center	2400 Valley Ave	Winchester
Winchester Green Circle	408 Marion St	Winchester
Winchester Senior Center	11 N Washington St	Winchester
Winchester Wheelmen	PO Box 1695	Winchester
Winchester/Frederick County Red Cross	561 Fortress Dr	Winchester
Youth Development Center	3 Battaile Dr	Winchester

Major Employers and Job Training Centers in Winchester, Virginia

Name	Address	City
American Woodmark Corporation	3102 Shawnee Dr	Winchester
Annandale Millwork Corporation	119 Arbor Ct	Winchester
Axiom Staffing Group	2035 S Pleasant Valley Rd	Winchester
Blue Ridge Hospice	333 W Cork St	Winchester
City of Winchester	15 N Cameron St	Winchester
Costco	251 Front Royal Pike	Winchester
County of Frederick	107 N Kent St	Winchester
Crown, Cork and Seal Company	1461 Martinsburg Pike	Winchester
FEMA/FBI	1646 Martinsburg Pike	Winchester
Fisher Scientific Company	8365 Valley Pike	Middletown
Food Lion	2600 Valley Ave	Winchester
Frederick County School Board	1415 Amherst St	Winchester
GE Lighting	125 Apple Valley Rd	Winchester
Grafton School, Inc.	120 Bellview Ave	Winchester
Grafton School, Inc.	407 Elm St	Winchester
H.P. Hood, Inc.	160 Hood Way	Winchester
Handy Mart	303 W Boscawen St	Winchester
Home Instead Senior Care	174 Garber Lane 3	Winchester
Howard Shockey & Sons, Inc.	1057 Martinsburg Pike	Winchester
Kelly Services, Inc.	28 Weems Ln	Winchester
Kohl's Department Stores	2194 S Pleasant Valley Rd	Winchester
Kraft Foods	220 Park Center Dr	Winchester
Lord Fairfax CC-Workforce Solutions and Continuing Education	173 Skirmisher Ln	Middletown
Lord Fairfax Community College	173 Skirmisher Ln	Middletown
Lord Fairfax Small Business Development Center	7718 Main St	Middletown
Lowes' Home Centers, Inc.	2200 S Pleasant Valley Rd	Winchester
Lowes' Home Centers, Inc.	261 Market St	Winchester
Manpower Temporary Service	609 Cedar Creek Grade	Winchester
Martin's Food Market	1950 S Pleasant Valley Rd	Winchester
McDonald's	6 Valley Ave	Winchester
Middletown Workforce Center (Lord Fairfax Community College	173 Skirmisher Ln	Middletown
Midwesco Filter Resources	385 Battaile Dr	Winchester
Monoflo International, Inc.	882 Baker Ln	Winchester
National Fruit Product Company	550 Fairmont Ave	Winchester
Navy Federal Credit Union	828 Berryville Ave	Winchester
Northern Shenandoah Valley Adult Education	156 Dowell J Circle	Winchester
Osullivan Films Inc.	1944 Valley Ave	Winchester
Perry Engineering Company	1945 Millwood Pike	Winchester
Quad/Graphics (acquired World Color USA LLC)	160 Century Ln	Winchester
Red Lobster & The Olive Garden	2400 S Pleasant Valley Rd	Winchester
Rubbermaid Commercial Products	3124 Valley Ave	Winchester
Selma Medical Associates, Inc.	104 Selma Dr	Winchester
Shenandoah University	1460 University Dr	Winchester
Shockey Brothers, Inc.	1057 Martinsburg Pike	Winchester
Stuart M. Perry Inc.	117 Limestone Ln	Winchester

Major Employers and Job Training Centers in Winchester, Virginia

Target Corp.	2340 Legge Blvd	Winchester

Name	Address	City
Target Corp.	191 Market St	Winchester
The Henkel Harris Company, Inc.	2983 S Pleasant Valley Rd	Winchester
The Home Depot	2350 Legge Blvd	Winchester
The Shockey Precast Group (formerly Shockey Brothers, Inc.)	219 Stine Ln	Winchester
Trex Company	3229 Shawnee Dr	Winchester
US Department of Defense	not available	Winchester
US Department of Homeland Defense	not available	Winchester
US Federal Bureau of Investigation	not available	Winchester
Valley Health System	1840 Amherst St	Winchester
Valley Proteins	151 Valpro Dr	Winchester
Walmart Supercenter	2300 S Pleasant Valley Rd	Winchester
Walmart Supercenter	501 Wal Mart Dr	Winchester
Westminster Canterbury	300 Westminster-Canterbury Dr	Winchester
Winchester City	15 N Cameron St	Winchester
Winchester City Public Schools	12 N Washington St	Winchester
Winchester Incubation Regional Enterprises	2281 Valley Ave	Winchester
Winchester VEC Field Office	100 Premier Place	Winchester
World Color USA LLC	160 Century Lane	Winchester

Medical Facilities and Pharmacies in Winchester, Virginia

Name	Address	City
Allied Pharmaceutical	111 Hill Valley Dr	Winchester
Amherst Family Practice	1867 Amherst St	Winchester
Apple Blossom Family Practice	2913 Valley Ave	Winchester
Behavioral Resources, PLC	134 W Picadilly St	Winchester
Blue Ridge Radiation Oncology	1870 Amherst St	Winchester
Child Development Clinic (Frederick/Winchester Healt	158 Front Royal Pike	Winchester
Community Health Services (Frederick Co. and Winchester City)	150 Commercial St	Winchester
Costco Pharmacy	251 Front Royal Pike	Winchester
CVS	1379 N Frederick Pike	Winchester
CVS	1400 Tasker Rd	Stephens City
CVS	1725 Amherst St	Winchester
CVS	1932 Senseny Rd	Winchester
CVS	2207 Valley Ave	Winchester
CVS	243 Sunnyside Plaza Cir	Winchester
CVS	2602 Valley Ave	Winchester
Dermatology Associates	1514 Amherst St	Winchester
Eye Associates of Winchester	1845 W Plaza Dr	Winchester
Eye Surgery Center of Winchester	525 Amherst St	Winchester
Firdous Cheema and Mckelway MDs	1812 W Plaza Dr	Winchester
Foot and Ankle Center	912 S Pleasant Valley Rd	Winchester
Frederick/Winchester Health Department	10 Baker St	Winchester
Free Medical Clinic of Northern Shenandoah Valley	301 N Cameron St	Winchester
Gaunt's Drug Store Inc.	1 Valley Ave	Winchester
HEALTHSOUTH Rehabilitation Center of Winchester	55 W Jubal Early Dr	Winchester
Internal Medicine Specialists	1870 Amherst St	Winchester
K-Mart-Pharmacy	1675 S Pleasant Valley Rd	Winchester
Lantz Pharmacy & Gifts	5015 Main St	Stephens City
Martin's Food Store Pharmacy	1950 S Pleasant Valley Rd	Winchester
Martin's Food Store Pharmacy	200 Rivendell Ct	Winchester
Martin's Food Store Pharmacy	240 Elizabeth Dr	Stephens City
Martin's Food Store Pharmacy	400 Gateway Dr	Winchester
Medical Arts Pharmacy	730 Berryville Ave	Winchester
Medical Circle Pharmacy Inc.	1338 Amherst St	Winchester
Medics USA	290 Front Royal Pike	Winchester
Mountain View Ear Nose and Throat	324 W Boscawen St	Winchester
Pediatric Associates Winchester	1002 Amherst St	Winchester
Retina Associates PC	190 Campus Blvd	Winchester
Rite Aid	410 Fairfax Pike	Stephens City
Rite Aid-Pharmacy	507 Amherst St	Winchester
ROTZ Pharmacy Inc	1338 Amherst St	Winchester
Selma Medical Associates, Inc.	104 Selma Dr	Winchester
Shenandoah Head Neck Specs	142 Linden Dr	Winchester
Shenandoah Lasic and Cartaract Center	142 Linden Dr	Winchester
Shenandoah Oncology	1870 Amherst St	Winchester

Medical Facilities and Pharmacies in Winchester, Virginia

Name	Address	City
Stephens City Family Medicine	370 Fairfax Pike	Stephens City
Stephens City VA Outpatient Clinic	170 Prosperity Dr	Winchester
Surgi-Center of Winchester	1860 Amherst St	Winchester
Target-Pharmacy	191 Market St	Winchester
Target-Pharmacy	2340 Legge Blvd	Winchester
The Lee Clinic	2228 Papermill Rd	Winchester
Timbrook Public Safety Center	231 E Piccadilly St	Winchester
Urology Clinic of Winchester	1712 Amherst St	Winchester
VA Clinic	106 Hyde Court	Stephens City
Valley Health Urgent Care	607 E Jubal Early Dr	Winchester
Valley Pharmacy	190 Campus Blvd	Winchester
Walgreens	131 Valley Mill Rd	Winchester
Walgreens	326 Amherst St	Winchester
Walgreens	645 E Jubal Early Dr	Winchester
Walgreens	701 Fairfax Pike	Stephens City
Walmart Pharmacy	2300 S Pleasant Valley Rd	Winchester
Walmart Pharmacy	501 Wal Mart Dr	Winchester
Wellness Pharmacy	2228 Papermill Rd E	Winchester
Wellspring - Service of Winchester Medical Center	525 Amherst St	Winchester
Winchester Cardiology and Vascular Medicine	190 Campus Blvd	Winchester
Winchester Ear Nose/Throat Center	2055 Valley Ave	Winchester
Winchester Eye Specialist	302 S Cameron St	Winchester
Winchester Family Health Center	525 Amherst St	Winchester
Winchester Family Health Center	130 Peyton St	Winchester
Winchester Foot and Ankle Associates	117 N braddock St	Winchester
Winchester Gastroenterology Associates	190 Campus Blvd	Winchester
Winchester Medical Center	1840 Amherst St	Winchester
Winchester Medical Consultants	212 Linden Dr	Winchester
Winchester Neurological Consultants	125 Medical Circle	Winchester
Winchester OB/GYN	1330 Amherst St	Winchester
Winchester Orthopaedic Associates	128 Medical Circle	Winchester
Winchester Pediatrics Clinic	190 Campus Blvd	Winchester
Winchester Pulmonary/Internal Medicine	1400 Amherst St	Winchester
Winchester Rehabilitation Center	333 W Cork St	Winchester
Winchester Surgical Clinic	20 S Stewart St	Winchester
Winchester Urgent Care	2505 Valley Ave	Winchester
Winchester Urology	148 Linden Dr	Winchester
Winchester Womens Center	1820 W Plaza Dr	Winchester

Parks and Recreational Facilities in Winchester, Virginia

Name	Address	City
Abrams Creek Wetlands Preserve	1643 Meadow Branch Ave	Winchester
Aquatics/Recreation Complex (Jim Barnett Park)	1001 E Cork St	Winchester
Clearbrook Park	Brucetown Rd & Route 11	Clear Brook
Elk Street Park	405 West Ln	Winchester
Frederick Douglass Park	598 N Kent St	Winchester
Frederick Heights	Milam Dr & Stafford Dr	Winchester
Friendship Park	623 N Pleasant Valley Rd	Winchester
Gainesboro Park	Gainesboro Rd & N Hayfield Rd	Winchester
Green Circle	Jubal Early Dr and Handley Ave	Winchester
Harvest Ridge Park	805 Crestview Terrace	Winchester
Jim Barnett Park	1001 E Cork St	Winchester
North-East-South-West Park	501 Darrview St	Winchester
Overlook Park	50 Montague Circle	Winchester
Park Place	2024 Harvest Dr	Winchester
Reynolds Store	N Frederick Pike & Chapel Hill Rd	Reynolds Store
Rolling Hills	702 Kennedy Dr	Winchester
Round Hill	Round Hill Rd & Poorhouse Rd	Winchester
Shawnee Springs Preserve	301 E Pall Mall St	Winchester
Sherando Park	150 Park Ln	Stephens City
Tevis Street Park	2644 Stonegate Dr	Winchester
Timbrook Park	132 East Ln	Winchester
Weaver Neighborhood Park	167 Bruce St	Winchester
Whittier Park	900 Whittier Ave	Winchester

APPENDIX D

Bicycle & Pedestrian Mobility Plan
(Executive Summary)

Bicycle & Pedestrian Mobility Plan

for the Win-Fred MPO

Prepared by:

Toole Design Group

September 21, 2007

Acknowledgements

Prepared for:

Win-Fred Metropolitan Planning Organization
103 East 6th Street
Front Royal, Virginia 22630
Phone: (540) 636-8800
www.winfredmpo.org

Prepared by:

Toole Design Group, LLC
6525 Belcrest Road, Suite 400
Hyattsville, MD 20782
Phone: (301) 927-1900
www.tooledesign.com

The Win-Fred Metropolitan Planning Organization would like to thank the following individuals for serving on the Steering Committee for this Plan:

Scott Alexander, VDOT
John Bishop, Frederick County Planning
Jerry Copp, VDOT
Alex Gray, Frederick County Planning
Brian Henshaw, Town of Stephens City
Matthew Hott, Frederick County Parks and Recreation
Eric Lawrence, Frederick County Planning
Jim Lawrence, Winchester Green Circle, Redbud Run Greenway
Ursula Lemanski, NPS RTCA
Bob Morris, Frederick County Planning Commission
Mike Ruddy, Frederick County Planning
Terry Short, VDOT
Bernie Suchicital, Frederick County Planning
Jon Turkel, Frederick County Parks and Recreation
Brad Veach, Winchester Parks and Recreation
Tim Youmans, City of Winchester Planning

Table of Contents

Executive Summary	i
Chapter 1: Introduction	1-1
Chapter 2: Existing Conditions	2-1
Chapter 3: Facility Recommendations	3-1
Chapter 4: Policy Recommendations	4-1
Chapter 5: Program Recommendations	5-1
Chapter 6: Implementation Plan	6-1
Appendix A: Bicycle and Pedestrian Facility Design Guidelines	A-1
Appendix B: Ordinance Review	B-1
Appendix C: Definitions	C-1
Appendix D: Results from the Online Questionnaire	D-1

Executive Summary

In recent years, the Winchester-Frederick region has experienced rapid growth and a resulting surge in demand for walking and bicycling facilities. The recent growth has created dramatic changes in transportation and land use. Roadways throughout the region are experiencing heavier volumes of traffic, causing concerns about the safety of pedestrians and bicyclists. Efforts should be made now to ensure that pedestrians and bicyclists will be able to use the roadway system in the Winchester-Frederick region in the future. As the transportation system is enhanced to accommodate increased volumes of automobiles, it must also be designed to allow people to safely walk and bicycle to their destinations.

Pedestrians in downtown Winchester

The *Win-Fred MPO Bicycle & Pedestrian Mobility Plan* provides a coordinated and strategic approach to the development of a transportation system that accommodates and encourages walking and bicycling throughout the region. The plan identifies a network of walking and bicycling facilities to improve non-motorized access for residents and visitors. Facility design guidelines and policy and program recommendations are provided to support and encourage bicycling and walking.

Why is Walking and Bicycling Important in the Winchester-Frederick Region?

Bicycling and walking is a necessary part of the transportation system in the Winchester-Frederick region.

Walking and bicycling are extremely important to the one third of the local population that does not have access to or use of an automobile. Over 80% of respondents to the online survey that was conducted as a part of this *Plan* responded that if a bicycle trail or signed bicycle route were provided near their home, they would ride on it. Ninety-five percent of respondents indicated that if there was a sidewalk or trail near their home, they would walk on it.

Developing a network of pedestrian and bicycle facilities makes good economic sense for the Winchester-Frederick region.
Bicycle tourism has the potential to bring in significant tourism revenue while not generating overwhelming numbers of automobiles. The implementation of this plan may help prevent the area from suffering negative economic effects as a result of being declared in non-attainment of the 8-hour ozone air quality standard.

Increased bicycling and walking for transportation can help to improve air quality and reduce traffic congestion in the Winchester-Frederick region.
Substituting a bicycling or walking trip for short automobile trip has the potential to reduce automobile emissions drastically, resulting in improved air quality. Air pollution is a serious health threat, contributing to the deaths of 60,000 people nationwide each year.

Bicycling and walking can play a vital role in improving the health of residents of the Winchester-Frederick region.
Residents of this region need opportunities to meet the Surgeon General's recommendation of 30 minutes of physical activity per day in order to help avoid becoming obese. Research conducted in 1999 by the Centers for Disease Control found that "obesity and overweight are linked to the nation's number one killer – heart disease—as well as diabetes and other chronic conditions." The report also states that one reason for Americans' sedentary lifestyle is that "walking and cycling have been replaced by automobile travel for all but the shortest distances."

Bicycling and walking are fun recreational activities for residents of the Winchester-Frederick region.
In the 2006 *Virginia Outdoors Survey*, the residents of the Northern Shenandoah Valley voted walking for pleasure the most popular outdoor activity. In the same statewide survey, bicycling was ranked the 6th most popular outdoor activity.

Statewide Policy & Planning Context

The development of a regional bicycle and pedestrian network is fully supported by state transportation policy goals. On March 18, 2004, the Commonwealth Transportation Board adopted a new state policy for integrating bicycle and pedestrian accommodations into roadway projects (often termed "incidental" improvements – bikeways and sidewalks that are built as part of new roadway construction or roadway reconstruction). This policy essentially reverses previous Virginia Department of Transportation (VDOT) policies which required substantial public and political support for bikeways and sidewalks to be *considered* for inclusion in transportation projects.

The new policy states that, "*VDOT will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking,*" and essentially requires bicycle and/or pedestrian accommodations whenever a roadway project occurs in an urban or suburban area.

Planning Process

The planning process for this project involved a number of different activities and outreach efforts. The process is briefly outlined below.

- *Field Analysis:* Analysis of existing conditions
- *Steering Committee:* A series of meetings with City, County and staff and other individuals who do pedestrian and bicycle related work locally
- *Stakeholder Meeting:* A large meeting with organizations affected by this Plan
- *Outreach Meetings:* Small meetings with persons and groups with an interest in the Plan and who were unable to attend the Stakeholder Meeting
- *Public Involvement:* Online questionnaire and public meetings

Vision, Goals, and Objectives

Vision Statement

The Winchester-Frederick region will become a place:

- *where bicycle and pedestrian facilities serve a dual purpose as recreation and transportation corridors, and;*
- *where people have the convenient and safe option of traveling on foot and by bicycle throughout the region.*

The following goals build on the strengths of the Winchester-Frederick region, and are designed to help achieve the vision for improving pedestrian and bicycle accommodations in the region.

GOAL 1, CONNECTIVITY: Develop a regional walkway, bikeway, and greenway network among residential neighborhoods, workplaces, shopping centers, historic sites and districts, schools, libraries, recreation centers, parks, battlefield sites, and other destinations, including linkages to neighboring jurisdictions.

GOAL 2, PRESERVATION OF COMMUNITY CHARACTER AND THE ENVIRONMENT: Preserve the unique character of the Winchester-Frederick region and protect the environment by encouraging pedestrian and bicycle travel and designating greenway and open space corridors.

Pedestrians in Winchester

GOAL 3, ECONOMIC DEVELOPMENT: Improve pedestrian and bicycle accommodations to support local businesses and to provide more opportunities for recreation-based and heritage tourism.

GOAL 4, HEALTH: Provide opportunities and encouragement for the region's residents to walk, bicycle, skate, run, and gain the health benefits of incorporating physical activity into their daily lives.

GOAL 5, SAFETY: Minimize the number of pedestrian and bicycle crashes and injuries while increasing the amount of pedestrian and bicycle activity in the region through improved facilities and education targeted at multiple users (motorists, bicyclists, and pedestrians).

Existing Conditions for Walking and Bicycling in the Winchester-Frederick Region

The Winchester-Frederick region offers numerous opportunities for walking and bicycling for both recreation and transportation. Many area residents use non-motorized transportation modes to access local parks, schools, shops, and workplaces in their communities. Residents and visitors walk to experience historic downtown Winchester.

Non-motorized transportation and recreation opportunities are provided throughout the Winchester-Frederick area. However, there are also many barriers to pedestrian and bicycle access, including the absence of important facilities, such as sidewalks and bicycle lanes on key roadways, disconnected street networks, and automobile-oriented developments.

Low density, single use development in the Winchester-Frederick area is creating a deterrent to walking and bicycling due to long travel distances between origins and destinations. Housing communities are often isolated from services, workplaces and schools, and are divided by wide arterials that are uncomfortable for walking and bicycling. Many of the existing suburban areas in the region will require substantial retrofit to accommodate and encourage walking and bicycling. Measures should be taken now to ensure that newly developed areas are designed to accommodate pedestrians and bicyclists.

Short Term Sidewalk Installation and Reconstruction (including ADA improvements)

The following table identifies priorities for sidewalk improvement, reconstruction, and ADA improvements in the short term. Each location identified for short term sidewalk installation and rehabilitation will require further study to determine the scope of the necessary improvement. This should happen as part of the design process. The short term improvements identified represent an aggressive schedule for improvements. Improvements or portions of improvements that cannot be completed in the short term may become longer-term projects. Opportunities may arise to construct these improvements (or other improvements not listed below) as part of other roadway projects, presenting the opportunity to install new sidewalks, complete ADA improvements, or rehabilitate existing sidewalks at a **greatly** reduced cost.

Short Term Sidewalk Installation, Reconstruction, and ADA Improvements

Street Name	From	To	Improvement	Length	Est. Cost*
City of Winchester					
E. Cork Street	City of Winchester Eastern Border	Purcell Ave/Maple Dr	New sidewalk or bike/walk path along City Park frontage on S. side	0.3	$54,000
	Purcell Ave/Maple Dr	S. Pleasant Valley Road	Reconstruct/widen sidewalks. Provide ADA improvements on both sides	0.1	$35,000
	S. Pleasant Valley Road	S. East Lane	New sidewalk on N. side and ADA improvements on S. side	0.4	$74,000
Valley Avenue, Rt. 11	W. Gerrard Street	Bellview Ave	Replace sections damaged by tree roots and provide ADA improvements for walks on both sides	0.7	$7,000
	Bellview Ave	Middle Road	Reconstruct/provide ADA improvements for walks on both sides. New walk in front of 2011 Valley Ave	0.8	$280,000
	Middle Road	City of Winchester Border	Infill new sidewalks on both sides	1.4	$336,600
Middle Road	Valley Ave	Crestview Terrace	Install new sidewalk on both sides	2.4	$840,000
	Crestview Terrace	Nazarene Drive	New sidewalk on east side. Infill missing sidewalk segments on W. side.	0.4	$132,000
	Nazarene Drive	City of Winchester Border	Install sidewalk on west side. Install missing segment of sidewalk or bike/walk path on E. side.	0.2	$38,000
Cedar Creek Grade	Valley Avenue	City of Winchester Border	Provide ADA and maintenance improvements for sidewalks on both sides (reconstruct and widen portions near tree wells if necessary)	1.5	$15,000
Pleasant Valley Road	Papermill Road	Berryville Avenue	Reconstruct/provide ADA improvements for existing sidewalks on both sides	2.9	$870,000
E. Jubal Early Drive	S. Loudoun Street	Millwood Avenue	Provide ADA and maintenance improvements for existing walks on both sides	0.7	$7,000
Amherst Street	N. Braddock Street	Entrance to Museum of Shenandoah Valley	Provide ADA and maintenance improvements for sidewalks on both sides (reconstruct portions if necessary)	0.6	$30,000
	Entrance to Museum of Shenandoah Valley	City of Winchester Border	Install new sidewalk and/or bike/walk path on S. side. Infill missing walk on N. side.	1.2	$312,000
S. Loudoun Street	Jubal Early Drive	Weems Lane	Install new sidewalks on both sides as part of VDOT project	0.4	N/A
	Piccadilly St	North Ave	Reconstruct sidewalks on both sides	0.3	$105,000
	Cork St	Gerrard St	Reconstruct sidewalks on both sides	0.4	$140,000
S. Kent St	E. Cork St	Millwood Avenue	Reconstruct sidewalks on both sides	0.4	$140,000
Woodstock Lane	N. East Lane	N. Pleasant Valley Rd	Infill new sidewalk on N. side	0.3	$54,000
National Ave	N. East Lane	N. Pleasant Valley Rd	Reconstruct sidewalks on both sides	0.4	$140,000
Town of Stephens City					
Main Street, Rt. 11	Town of Stephens City Northern Border	Barley Drive	Install new sidewalks on both sides of road	0.6	$210,000
	Barley Drive	Newtown Court	Install new sidewalk on E. side of road	0.5	$90,000
	Newtown Court	Stephens Run Street	Reconstruct/provide ADA improvements for existing sidewalks on both sides of the road	0.6	$196,000
Frederick County (within WinFred MPO)					
Senseny Road	Greenwood Road	City of Winchester Line/E. Cork Street	Install new sidewalks on both sides of road	1.6	$560,000
Front Royal Pike, Rt. 522	Millwood Pike, Rt. 50	Clarke County Line	Install new sidewalks on both sides of road	7.0	$2,450,000
Valley Pike, Rt. 11	City of Winchester Southern Border	Musket Drive	Install new sidewalks on both sides of road	2.6	$910,000
Middle Road	City of Winchester Western Border	Powder Horn Lane	Install new sidewalks on both sides of road	1.2	$420,000
Cedar Creek Grade	City of Winchester Western Border	Rt. 37	Install new sidewalks on both sides of road	0.9	$315,000
Greenwood Road	Berryville Pike	Edmonson Lane	Install new sidewalks on both sides of road	2.1	$745,500

***Note: Cost estimates are provided for planning purposes only. These estimates assume that each project would be independently funded. However, due to the more common practice of incorporating bicycle and pedestrian facilities into larger street construction projects, as well as the involvement of private developers in constructing these facilities in many locations, the costs shown above are in many cases much higher than the actual cost of implementing projects.**

Short Term Bicycle Facilities

The locations in the following tables have been identified for on-street bicycle facilities in the short term. Additional traffic analysis will be needed in some cases to determine the optimum design for specific locations. Some locations may be determined, after more detailed analysis, to require different or more costly improvements and therefore may become longer-term projects. Additional opportunities not shown on the map may also arise during repaving and other roadway projects, presenting the opportunity to reallocate roadway space for bicycles. Costs shown in this section may be **greatly** reduced by incorporating new bicycle facilities into roadway resurfacing and rehabilitation projects as an improvement incidental to the larger project.

Short Term Bicycle Facilities

Street Name	From	To	Improvement	Length (miles)	Est. Cost*
City of Winchester					
Valley Avenue, Rt. 11	S. Braddock Street	City of Winchester Southern Border	Bike Lanes	2.6	$79,200
S. Loudoun Street	Jubal Early Drive	Weems Lane	Bike Lanes	0.6	$18,900
Papermill Road	Weems Lane	S. Pleasant Valley Road	Bike Lanes	0.6	$18,600
Papermill Road	S. Pleasant Valley Road	City of Winchester Eastern Border	Bike Lanes	0.6	$18,600
Pleasant Valley Road	Berryville Ave	Papermill Road	Bike Lanes	2.9	$85,500
Cork Street	City of Winchester Eastern Border	S. Washington Street	Bike Lanes	1.3	$38,100
Amherst Street	City of Winchester Western Border	W. Boscawen Street	Bike Lanes	1.4	$42,000
W. Boscawen Street	Amherst Street	N. Washington Street	Bike Lanes	0.3	$7,500
Cedar Creek Grade	City of Winchester Western Border	Valley Ave	Bike Lanes	0.5	$15,900
Jubal Early Drive	S. Pleasant Valley Road	Meadow Branch Ave	Bike Lanes	1.4	$42,600
Jubal Early Drive	Valley Ave	Meadow Branch Ave	Add Missing Segments to Existing Shared Use Path	0.7	$110,000
Middle Road	Valley Ave	City of Winchester Western Border	Bike Lanes and/or add Missing Segments to Existing Shared Use Path	1.0	Bike Lanes: $30,000; Missing Segments Shared Use Path: $255,000
Campus Boulevard	Amherst Street	Winchester Medical Center/Wellness Center	Bike Lanes	0.7	$20,400
Town of Stephens City					
Main Street, Rt. 11	Town of Stephens City Northern Border	Town of Stephens City Southern Border	Bike Lanes	1.8	$52,500
Fairfax Street	Main Street	Town of Stephens City Eastern Border	Bike Lanes	0.1	$4,200

***Note: Cost estimates are provided for planning purposes only. These estimates assume that each project would be independently funded. However, due to the more common practice of incorporating bicycle and pedestrian facilities into larger street construction projects, as well as the involvement of private developers in constructing these facilities in many locations, the costs shown above are in many cases much higher than the actual cost of implementing the projects.**

Short Term Bicycle Facilities, Continued

Street Name	From	To	Improvement	Length (miles)	Est. Cost*
Frederick County (within WinFred MPO)					
Valley Pike, Rt. 11	City of Winchester Southern Border	Town of Stephens City Northern Border	Bike Lanes	2.9	$86,100
Valley Pike, Rt. 11	Town of Stephens City Southern Border	MPO Southern Border	Bike Lanes	1.5	$43,500
Front Royal Pike (522)	Millwood Pike, Rt. 50	Clarke County Western Border	Bike Lanes	7.1	$212,400
Front Royal Pike (522)	Proposed Trail north of Clydesdale Drive	Tasker Road	Shared Use Path	1.5	$46,200
Senseny Road	City of Winchester Eastern Border	Clarke County Western Border	Bike Lanes	3.7	$110,438
Cedar Creek Grade	City of Winchester Western Border	Rt. 37	Bike Lanes	1.0	$30,900
Cedar Creek Grade	Proposed Trail near Winchester Western Border	Proposed Trail to the east of Rt. 37	Shared Use Path	0.6	$197,200
Middle Road	City of Winchester Western Border	MPO Western Border	Bike Lanes	1.8	$52,500
Apple Valley Road	Middle Road	Valley Pike	Bike Lanes	1.2	$36,898
Greenwood Road	Berryville Pike, Rt. 7	Sulphur Spring Road	Bike Lanes	3.0	$89,880
Northwestern Pike, Rt. 50	City of Winchester Western Border	Round Hill Road	Shared Use Path	0.7	$238,000
Northwestern Pike, Rt. 50	Round Hill Road	MPO Western Border	Bike Lanes	3.9	$117,000
Frederick Pike (Route 522)	City of Winchester Northern Border	Indian Hollow Road	Shared Use Path	2.1	$720,800
Frederick Pike (Route 522)	Indian Hollow Road	MPO Western Border	Bike Lanes	1.7	$49,500
Valley Mill Road	Berryville Pike, Rt. 7	Berryville Pike, Rt. 7	Bike Lanes	3.0	$91,320
Valley Mill Road	Greenwood Road	Proposed Trail near the Rt. 37 extension	Shared Use Path	1.9	$646,000
Airport Road	Front Royal Pike, Rt. 522	Millwood Pike, Rt. 50	Bike Lanes	3.8	$113,100
Victory Road	Millwood Pike	Airport Road	Bike Lanes	0.8	$22,500
Independence Road	Victory Road	Millwood Pike, Rt. 50	Bike Lanes	0.5	$15,472
Tasker Road	Route 37	Front Royal Pike, Rt. 522	Bike Lanes	4.6	$136,875
Aylor Road	Tasker Road	Fairfax Pike	Share Use Path	2.1	$709,920
Fairfax Pike	Town of Stephens City Eastern Border	Clarke County Western Border	Bike Lanes	4.5	$136,170
Sherando Lane	Sherando Park	Double Church Road	Bike Lanes	0.7	$22,287
Apple Pie Ridge Road	Frederick Pike, Rt. 522	Hiatt Road	Bike Lanes	3.8	$114,321
Warrior Drive	Sherando High School (South of Fairfax Pike)	Craig Drive (Connect to Proposed Trail to the North)	Bike Lanes	1.9	$56,100
Papermill Road	City of Winchester Eastern Border	Front Royal Pike, Rt. 522	Bike Lanes	1.3	$40,200

***Note: Cost estimates are provided for planning purposes only. These estimates assume that each project would be independently funded. However, due to the more common practice of incorporating bicycle and pedestrian facilities into larger street construction projects, as well as the involvement of private developers in constructing these facilities in many locations, the costs shown above are in many cases much higher than the actual cost of implementing projects.**

Short Term Shared-Use Paths

The Winchester Green Circle Trail is currently under development. This is a high-priority project and as much of the trail as possible should be completed in the next five years.

In the short term, most of the proposed shared use paths shown on the Proposed Bicycle & Pedestrian Network Map should be constructed as part of the development process. Local governments should also begin securing capital budget items for future use as

matches for Transportation Enhancement grants. In the medium term, missing trail segments should be identified and this funding can be used to pursue the development of these missing links and new trail construction projects, such as the Rt. 37 Loop Trail.

Short Term Roadway Crossing Improvements (Including ADA Improvements)

The locations identified below should be prioritized for roadway crossing improvements. Roadway crossing improvements include ADA curb ramps, pedestrian countdown signals, raised medians, and other improvements (as recommended in Appendix A of this plan) to improve the safety of pedestrians and bicyclists crossing the roadway.

City of Winchester:

- S. Pleasant Valley Road and E Cork Street
- E. Cork Street and N. Purcell Ave
- S. Pleasant Valley Road and Lowry Drive/Hollingsworth Drive
- S. Pleasant Valley Road and E. Jubal Early Drive
- Apple Blossom Drive and E. Jubal Early Drive
- Jubal Early Drive and S. Loudoun Street
- W. Jubal Early Drive and Valley Avenue
- Millwood Avenue at Shenandoah University (Frontage Road)
- W. Piccadilly Street and N. Braddock Street
- Amherst Street and W. Boscawen Street
- Amherst Street and Whittier Avenue
- Amherst Street and Meadow Branch Avenue

Frederick County (Within the WinFred MPO):

- Berryville Pike at Eastern border of Frederick County
- Berryville Pike and Interstate 81
- Papermill Road at Interstate 81
- Millwood Pike and Inverlee Way
- Northwestern Pike, Rt. 50 near Rt. 37
- Rt. 37 and Frederick Pike (522)
- Rt. 37 near Winchester Medical Center
- Apple Pie Ridge Road and Frederick Pike
- Middle Road and Rt. 37
- Cedar Creek Grade and Rt. 37

Short Term Policies

The policies identified below are meant to serve as the first step to ensuring that local design guidelines, ordinances, regulations, and other policies are supportive of including facilities for pedestrians and bicycles.

- *Development Review*: The Town, City, County, and VDOT should continue to ensure that transportation and recreation facilities accommodate pedestrians and bicycles during development projects and roadway construction and upgrades.
- *Pedestrian And Bicycle Liaisons:* The City and County should each designate one existing staff person as Pedestrian and Bicycle Liaison.
- *Pedestrian And Bicycle Advisory Committee:* A new ad hoc Pedestrian and Bicycle Advisory Committee should be formed to assist the Pedestrian and Bicycle Program liaisons.
- *Revise Ordinances:* Frederick County, City of Winchester, and Town of Stephens City should revise their comprehensive plans, subdivision ordinances, and zoning ordinances to ensure better accommodations for pedestrians and bicycles. Developer-provided pedestrian and bicycle accommodations should meet the new design standards.
- *Develop A Maintenance Program*: The City and County should develop a schedule for maintaining pedestrian and bicycle facilities.
- *Provide Training And Professional Development:* Conduct regional pedestrian and bicycle training periodically, and encourage staff to attend conferences with educational opportunities on pedestrian and bicycle facility planning and design, and encourage the Pedestrian and Bicycle Liaisons to join the Association of Pedestrian and Bicycle Professionals (APBP).
- *Pursue Additional Funding:* Pursue additional grant sources and capital funding as necessary to supplement developer-financed pedestrian and bicycle facilities.

Short Term Programs (Education, Encouragement, Enforcement)

The education, encouragement, and enforcement strategies identified below are recommended to be implemented within the next five years. These programs are intended to promote and increase the safety of walking and bicycling locally.

- *Seek Funding To Initiate A Safe Routes To School Program:* The Pedestrian and Bicycle Program Liaisons should work with local schools to apply to VDOT for Federal grant funding to establish a SRTS pilot program at local schools.
- *Unify And Strengthen Existing Education Programs:* Groups that are already organizing education/encouragement events such as the Winchester Green Circle Fall Fitness Fair and Valley Health's Community Wellness Festival should coordinate on event dates and themes to reinforce new messages each year.
- *Walk And Bicycle To School Day:* The Pedestrian and Bicycle Program Liaisons should work with local schools to increase participation in International Walk and Bicycle to School Day (held each year in October).
- *Bicycle And Walking Rodeos*: Existing bicycle and walking rodeos should continue and more should be conducted each year.
- *Pedestrian And Bicycle Safety Education In Schools*: The Pedestrian and Bicycle Program Liaisons should work with the schools to incorporate bicycle and pedestrian safety education in elementary and middle schools throughout the area. Grant funding may be needed to support this activity.

- *Bicycle Safety Education For Adults:* The MPO should work with the Winchester Wheelmen to sponsor and promote adult cycling classes offered by the Virginia Bicycling Federation.
- *Pedestrian And Bicycle Awareness Campaign:* The MPO should investigate partnering with the metropolitan Washington Council of Governments on the Street Smart Pedestrian and Bicycle Safety Public Awareness Campaign.
- *Safety Awareness Week:* Law Enforcement officers should conduct a "Focus on Pedestrians" safety campaign.
- *Corridors-To-Campus Initiative:* Working with University officials, the PBAC should support a corridors-to-campus initiative designed to identify, and implement strategies to support walking and bicycling to and from Shenandoah University and between the campus locations.

Medium Term Recommendations (0 to 10 years)

There are a number of recommended projects and programs that are very important for improving pedestrian and bicycle conditions in the Winchester-Frederick region, but are likely to take longer to implement than the short term initiatives. These projects and programs are classified as medium term recommendations. Though these recommendations are designed for a 10-year timeframe, the Town, City, and County should take advantage of opportunities that arise to implement the projects and programs sooner.

Medium Term Sidewalk Installation and Reconstruction (Including ADA Improvements)

The locations in the Table below have been identified for sidewalk installation, reconstruction, and ADA improvements in the medium term. (Refer to the maps in Chapter 5 for project limits)

City of Winchester:

- Berryville Avenue (S. Pleasant Valley Road to City of Winchester eastern border)
- N. East Lane (National Ave to E. Piccadilly Street)
- Piccadilly Street (N. East Lane to Fairmont Ave)
- Merrimans Lane (City of Winchester western border to Meadow Branch Ave)
- Millwood Avenue (Lowry Drive to City of Winchester eastern border)
- Washington Street (W. Fairfax Lane to Handley Boulevard)
- Fairmont Avenue (W Piccadilly Street to City of Winchester north border)
- N. Loudoun Street (N. Cameron Street to City of Winchester north border)
- Papermill Road (S. Loudoun Street to S. Pleasant Valley Road)

Town of Stephens City:

- Fairfax Street (Main Street to Town of Stephens City eastern border)

Frederick County (within the WinFred MPO):

- Frederick Pike, Rt. 522 (Fairmont Ave to Long Green Lane)
- Berryville Pike (City of Winchester eastern border to Greenwood Road)
- Merrimans Lane (Orchard Lane to City of Winchester western border)
- Millwood Pike (City of Winchester eastern border to Arbor Court)
- Warrior Drive (Fairfax Pike to Tasker Road)
- Fairfax Pike (Town of Stephens City western border to Line Drive)
- Tasker Road (Rutherford Lane to White Oak Road)
- Aylor Road (Tasker Road to Village Lane)
- Northwestern Pike, Rt. 50 (western border of City or Winchester to Spinning Wheel Lane)
- Martinsburg Pike (City of Winchester north border to Park Center Drive)

Medium Term Bicycle Facilities

The locations in the Table below have been identified for on-street bicycle facilities in the medium term. (Refer to the maps in Chapter 5 for project limits)

City of Winchester:

- Millwood Avenue
- Berryville Avenue, Rt. 7
- Merrimans Lane
- Loudoun Street (portions not completed during the short term)
- Braddock Street
- Washington Street
- Handley Boulevard
- Fox Drive

Frederick County (within the WinFred MPO):

- Rt. 37 Trail (along existing and proposed bypass)
- Martinsburg Pike (Route 11)
- Millwood Pike
- Berryville Pike, Rt. 7
- Merrimans Lane
- Sulphur Spring Road
- Fox Drive
- Echo Lane
- Glentawber Road
- Old Charles Town Road
- Milburn Road
- Jordan Springs Road/Stephenson Road
- Woods Mill Road
- Double Church Road
- Brandy Lane

- Shady Elm Road
- Redbud Road
- Indian Hollow Road
- Welltown Road
- Hiatt Road
- Rest Church Road
- Hopewell Road
- Brucetown Road
- Ivory Drive
- Macedonia Church Road
- White Oak Road
- Hudson Hollow Road
- Forest Lake Drive
- Town Run Lane

Medium Term Shared-use Paths

As mentioned previously, in the short term, most of the proposed shared use paths shown on the Proposed Bicycle & Pedestrian Network Map should be constructed as part of the development process. In the medium term, missing trail segments should be identified and developed. New trail construction projects should also be developed in the medium term, such as the Rt. 37 Loop Trail. The cost for filling gaps in shared-use paths is expected to be approximately $340,000 per mile.

Medium Term Roadway Crossing Improvements

The locations identified below should be prioritized for roadway crossing improvements in the medium term. Roadway crossing improvements include ADA curb ramps, pedestrian countdown signals, raised medians, and other improvements (as recommended in Appendix A of this plan) to improve the safety of pedestrians and bicyclists crossing the roadway. (Refer to the maps in Chapter 5 for project limits)

City of Winchester:

- N. Pleasant Valley Road and Berryville Avenue/National Avenue
- N. Pleasant Valley Road and Woodstock Lane
- S. Pleasant Valley Road and Millwood Avenue
- Berryville Avenue near Elm Street/Fort Collier Road
- Featherbed Lane and S. Loudoun Street

Frederick County (within the WinFred MPO):

- Interstate 81 crossing at proposed trail to the south of Rt. 37
- Interstate 81 crossing at proposed trail to the south of Martinsburg Pike
- Interstate 81 crossing at proposed trail to the north of Papermill Road
- Interstate 81 crossing at proposed trail to the south of Papermill Road
- Interstate 81 crossing at proposed trail to the north of Stephens City

- Rt. 37 crossing at proposed trail coming from Abrams Creek Wetlands Preserve
- Rt. 37 crossing at proposed trail near Martinsburg Pike
- Proposed crossing of the Rt. 37 trail with Berryville Pike

Medium Term Policies and Planning

The policies identified below are meant to serve as the second step to ensuring that local design guidelines, ordinances, regulations, and other policies are supportive of including facilities for pedestrians and bicycles.

- *Revise The Pedestrian & Bicycle Mobility Plan:* The Pedestrian & Bicycle Mobility Plan should be updated once every 10 years to respond to changing local conditions.
- *Maintenance Website And Hotline:* Once a regular schedule for pedestrian and bicycle facility maintenance is established, a website and phone hotline should be established to allow residents to report maintenance problems and request spot repairs.
- *Maintenance Manager:* As need arises, the County should identify a lead staff person as a Maintenance Manager to organize and keep track of both regular and remedial inspection and maintenance of the pedestrian and bicycle network.
- *Trend-Setter Policy*: The Town, City, and County can serve as trend-setters by becoming early implementers of some of the recommendations in this plan, such as the provision of bicycle parking racks near their facilities, and offering incentives to people who walk or bike to work.
- *ADA Transition Plan:* The Town, City, and County should complete an Americans Disabilities Act (ADA_ plan for the elements of the public right of way.

Medium Term Programs (Education, Encouragement, Enforcement)

The education, encouragement, and enforcement strategies identified below are recommended to be implemented in the medium term. These programs are intended to promote and increase the safety of walking and bicycling locally.

- *Safety City:* The Pedestrian and Bicycle Program Liaisons could apply for grant funding to install and run a permanent “Safety City” program in order to provide pedestrian and bicycle education to children.
- *Media Outreach And Website:* The Pedestrian and Bicycle Advisory Committee (PBAC) should develop a media outreach plan to promote bicycling and walking and to educate various constituencies throughout the region.
- *Employee Pedestrian And Bicycle Commute Incentives Program:* The City of Winchester and Frederick County should encourage pedestrian and bicycle commuting by providing information about economic benefits, health benefits, and potential commuting routes to employers and employees.

- *Initiate An Adopt-A-Trail Program:* In order to support pedestrian and bicycle facilities, the City of Winchester and Frederick County should implement an "Adopt-a-Trail" program.
- *Bicycle And Walking Maps:* The Win-Fred MPO, the Tourism Board, the Convention and Visitors Bureau and/or local agencies should partner with the Chamber of Commerce develop maps of walking and bicycling routes. Existing maps should be updated periodically, and new maps should be developed.
- *Community Events:* The Pedestrian and Bicycle Program Liaisons should work with the PBAC, the Winchester Wheelmen, the Winchester Green Circle and local volunteer groups to sponsor regular rides and events in the Winchester-Frederick area.
- *Community Advocacy Programs*: The Winchester Wheelmen and the Shenandoah Valley Runners can take the lead in developing a community-wide advocacy program to raise awareness of bicycle and pedestrian issues.
- *Crosswalk Enforcement Programs:* Educate law enforcement officers about how to conduct a crosswalk enforcement program.
- *Involve Law Enforcement In SRTS Activities*: Law enforcement officers with the City and County should actively participate in Safe Routes to School (SRTS) programs.

Long Term Recommendations (0 to 25 years)

Long term recommendations include filling additional sidewalk gaps, adding additional on-street bicycle facilities, and constructing much of the off-street trail system that is shown on the maps in Chapter 5.

While these recommendations may be included in the long term category, there may be opportunities for implementing them sooner. For example, pedestrian and bicycle facilities could be added as a part of a new roadway project added to the Transportation Improvement Program or a new pedestrian and bicycle program could be provided by applying to a new grant funding source. The Town, City, and County should take advantage of these opportunities for implementation.

Programs that began in the first 10 years of implementation should grow in the long term. Refinements should be made based on lessons learned during the first 10 years.